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your 64

OCTOBER 1985 95p No.14



MEGAGAME
DESERT ISLAND RISKS
Spy Vs Spy II

SIZZLING PREVIEW
TERRORMOLINOS
Take The Strain Out Of Spain

DEFENDER LISTING
SELF DEFENCE
Write Your Own Game

PUNCHY REVIEW
IT'S A KNOCKOUT!
Barry McGuigan's Boxing

GRAPHICS SOFTWARE
ART ATTACK
Pixel Painting Packs

Trivia

A family game for 2 to 4 players in which mum is just as much at home as the sports crazy son.
Over 2000 questions on six subjects like Entertainment - Sports - History.

C64 - Amstrad - Atari - BBC - Spectrum £7.95



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A soccer game with real pace in which passing skills are as essential as speed. Penalty shoot out truly tests your anticipation.
One or two player option.

C64 - £5.95
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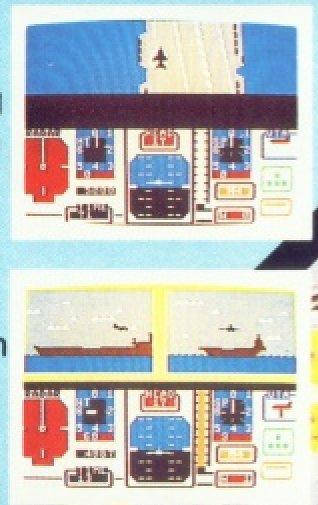


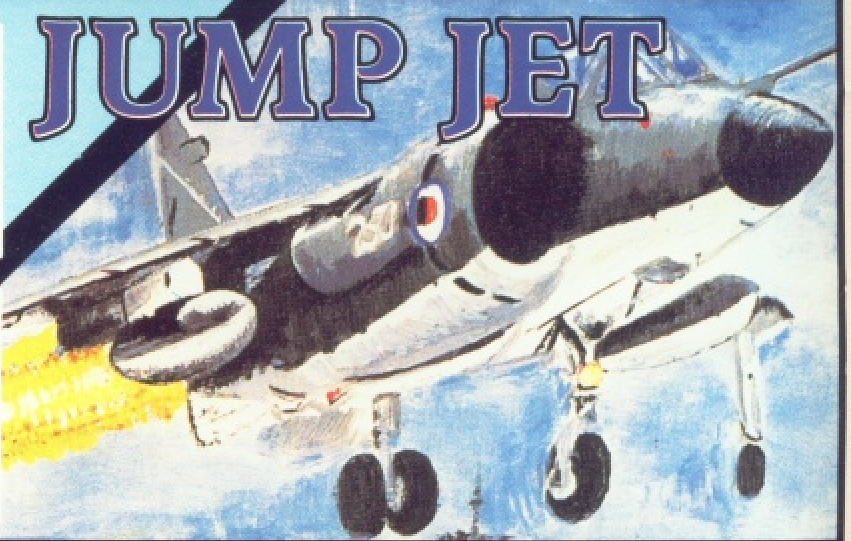
A fast and furious game which requires skill and fast reactions. Ice Hockey is a tough game but persistent rough game is punished by roughing penalties.
One player or two player option.

C64 - Amstrad - MSX £8.95

JUMP JET

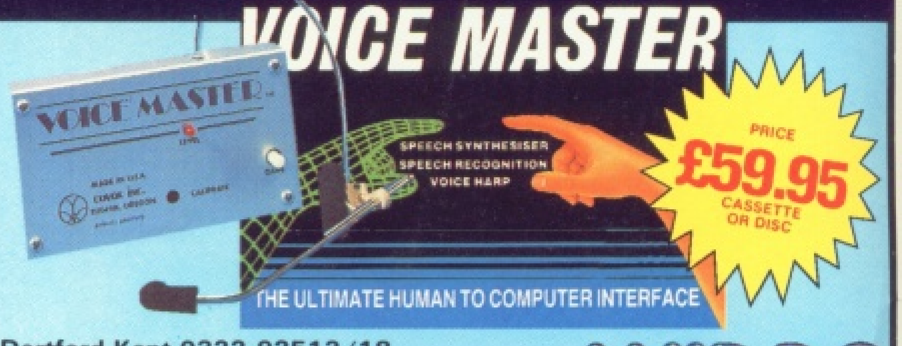
Assume control of this unique fighting machine. Take care that you practice take off and landing thoroughly before you embark on a combat mission to seek and destroy the enemy aircrafts. Use your radar to locate the carrier and land in worsening weather conditions as you progress through the ranks.





C64 - Amstrad - BBC £9.95.
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Y64 MENU

MEGAGAMES

REVIEW



ART ATTACK

No, it's not Aikido but a do-it-yourself *Defender* game! Writing your own games is easy if you follow our step-by-step guide.

PAGE 40

GAMES

PROGRAMMING

SELF DEFENCE

Doodling's a doddle with a 64 and the right art pack. We put you in the picture.

PAGE 26

COMPETITIONS

OFFERS

OPEN ACCESS

CORE MATERIAL

TALK TO US!

01-631 1433
EDITORIAL ENQUIRIES
Alison Hjul
PUBLISHING ENQUIRIES
Stephen England
ADVERTISING ENQUIRIES
Neil Dyson

01-636 3513
Y64 HELPLINE
Martin McGuinness
The Helpline is open between 10am-1pm and 2-5pm, Tuesdays and Thursdays only!

Your 64, Sportscene Specialist Press, 14 Rathbone Place, London W1P 1DE.

ABC **38,021**
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COVER ILLUSTRATION
NICK DAVIES

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☐ **Mikro Assembler Cartridge**	£57.50	£39.95	**£17.55**
☐ **Master 64 D**	£69.00	£47.95	**£21.05**
☐ **Toolkit 64 Tape**	£9.95	£6.95	**£3.00**
☐ **Toolkit 64 Disc**	£11.95	£7.95	**£4.00**
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OPEN ACCESS

Are the Young Ones *game for a laugh? ... Ultimate fight piracy ... Who's got the magician's ball? ... Why's the Ed in a spin? ... Add muscle to your 64 with* Geoff Capes *and* Popeye *... Wanna find out who's in your computer? Then read on ...*

Bag A Bosom Buddy!

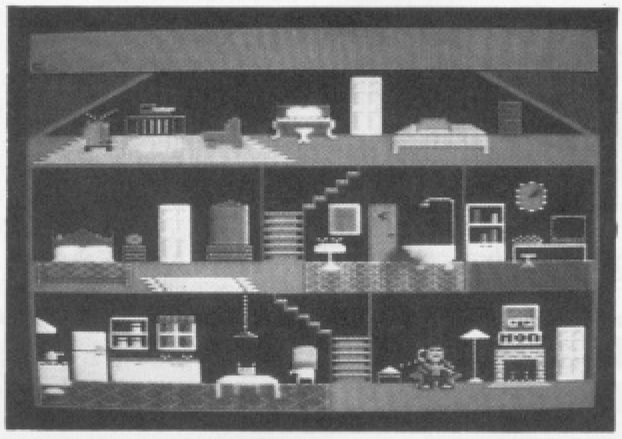
How d'ya fancy a friend who'll do nearly everything you tell him to, needs very little looking after and who'll even chat to you?

Well, with Activision's *Somebody's In My Computer*, you can! This natty piece of software produces a special buddy who comes to life in your 64. He's got his very own house, complete with bedroom, kitchen, bathroom ... and even a telephone!

Watch him go about his daily routines such as cooking, eating, answering the doorbell and cleaning his teeth. Or ask him to play the piano, type a letter or operate his computer.

But he's got a mind of his own — there's no guarantee he'll obey each command! You must treat him well, else he'll get upset and become ill. Just make sure he's got water and pat him occasionally, then he'll go about his business quite happily!

Somebody's In My Computer sports excellent graphics and sound and is an extremely novel idea which is sure to capture the imagination of 64 users both young and old. Give your buddies at Activision a ring on 01-935 1428 for some friendly details.



Ain't he cute? Your very own cheery chum who'll keep you company when you feel glum.

Beyond Beyond

Beyond has joined forces with a new software house, Nexus. And just to totally confuse everyone, their first game is called *Nexus* and will be marketed under a new label, also called Nexus! (*Whatever Nexus? Ed*).

The game's a graphics adventure where, as an investigative reporter, you must infiltrate an evil drugs ring in South America. On your intrepid journey, you'll meet various characters to help you on your way. And there's good news for any aspiring news hounds — no wads of notes for this game, just twitch the joystick and instructions flash onto the screen.

Seek out more details from Beyond on 01-837 2899.

Unmystakably Ultymate

The ghostly shape of a large galleon appeared out of the mist, surrounded by a strange luminescence. Evil



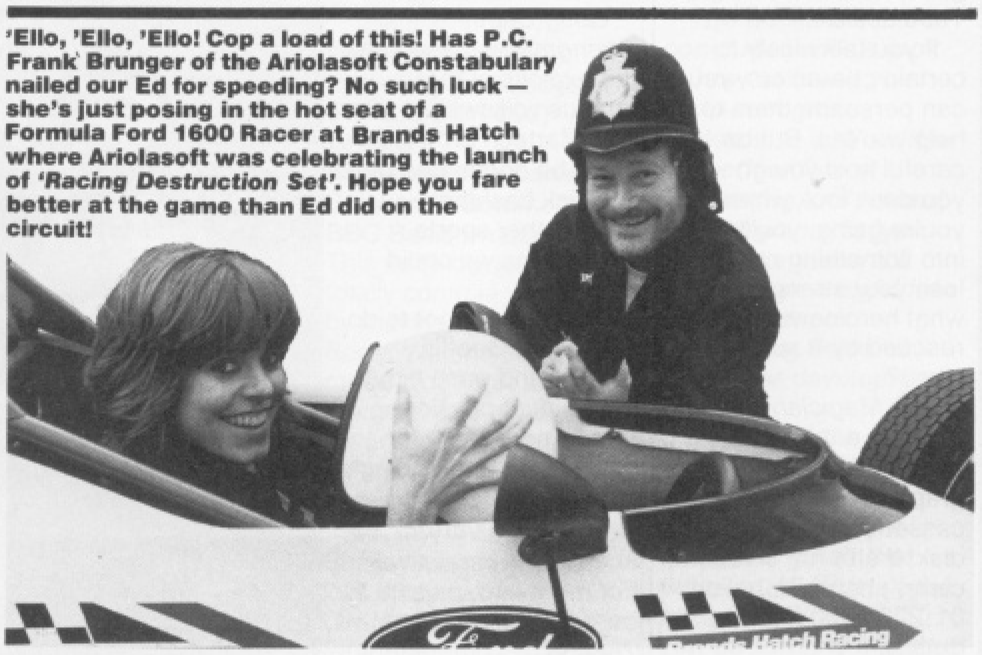
forces loomed, urging me closer. I slipped onto the deck and was drawn towards a small doorway. Behind the door I espied a book — the log of the Ship Blackwyche.

I opened the pages in awe of the contents — it recalled an ancient legend of an object filled with the power of evil ... Turning to the last page, I reeled in horror — 'twas splattered with dried blood and a sinister message.

Come out from under your 64 — it's only another one of Ultimate's Sir Arthur Pendragon games, with the usual animated graphics and enchanting sound effects.

Blackwyche costs £9.95 on cassette. If you wish to further unravel the mystery, give Ultimate a bell on (0530) 411485.

'Ello, 'Ello, 'Ello! Cop a load of this! Has P.C. Frank Brunger of the Ariolasoft Constabulary nailed our Ed for speeding? No such luck — she's just posing in the hot seat of a Formula Ford 1600 Racer at Brands Hatch where Ariolasoft was celebrating the launch of *'Racing Destruction Set'*. Hope you fare better at the game than Ed did on the circuit!





Neil: But guys — this is really heavy man! It's a really amazing computer game about us by some really cool guys at Orpheus — I bet they're hippies too.

Vyvyan: Give it here Neil you stupid scumbag! This is completely *brilliant*, cos it's got me in it. And everyone except pubescent, girly Rick.

Rick: Shut your face Vyvyan! Crikey, I'm in too — and I've been chosen to try and win the game.

Mike: They must be stupid.

Rick: P'raps they've had a frontal lobotomy like Neil.

Neil: You're a real bummer! Wow this is a total freakout — it's even got our house with all the rooms. Yeah, even my bedroom.

Vyvyan: Ugh — disgusting. Bed-wettingly, spot-rupturingly, nauseatingly disgusting!

Rick: Look matey I'm the one they want — right kids? I bet they choose me and have piles of fun beating off you cretins.

Mike: Hold on a minute guys — this groovy game even shows us speaking to each other. And don't I look cool.

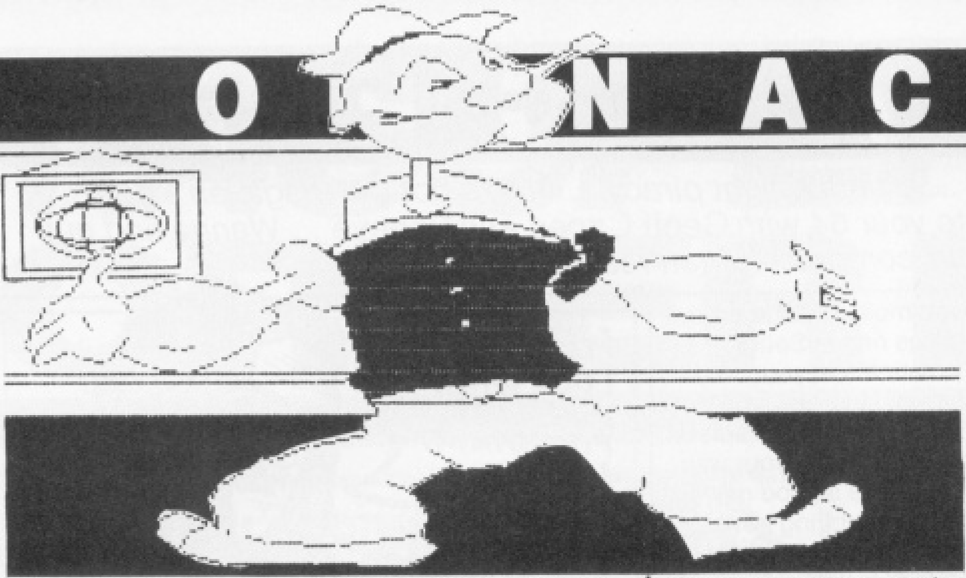
Vyvyan: You complete and utter zithead Rick. You're plotting with that brainless hippy to bash my brains out. Well, you won't cos I'll kill myself you nerds.

Rick: Blimey! You're absolutely potty. This game's brilliant, zany and crazy — just like me 'eh? C'ept of course it's not anarchic.

Neil: Far out! Everything's controlled with icons. We've gotta spread the word to everyone — especially vegetarians.

Vyvyan: Ha Ha! That's a bomb in your hand hippie-pants which means you're about to self-destruct and we're all gonna die! Ha Ha.

Rick: Oh very clever Vyvyan — you don't think I would fall for a poo-brain idea like that. Aaaaaarrrggghhhh!



Oi'll Be Seaing You!

Calling all Popeye fans! Dk'Tronics is releasing a new game based on this loveable old seadog.

As Popeye the sailor man, you must tear around this graphic adventure in search of love hearts to take back to the delectable Olive Oil. But you'll need to beef yourself up on spinach 'cos it ain't that easy! You've got all sorts of obstacles to avoid — birds, flying saucers and, worst of all, that bruiser Bluto who's always trying to win over your beloved Olive (What a goil!).

With 16 different screens and plenty of spinach and sound effects, *Popeye* is good value at £6.95. Ring (0799) 26350 and muscle in on DK'Tronics.

High On Speed

Boost the loading speed of cassette or disk based software with one of Robcom's new Turbo cartridges. There are five cartridges ranging in price from £24.95 for Turbo 10 to £39.95 for Turbo 50 and including a wealth of features — obviously, the list increases with the power of the cartridge.

Some of the functions available are a Basic toolkit, a Centronics Printer interface, and the conversion of all 64 graphic and control codes into readable text. What's more, they don't use up any of your 64's precious memory.

These turbo cartridges are the first of a number



of new Robcom products. For more info, get on the hotline to Robcom on 01-209 0118.

Logo-A-Gogo

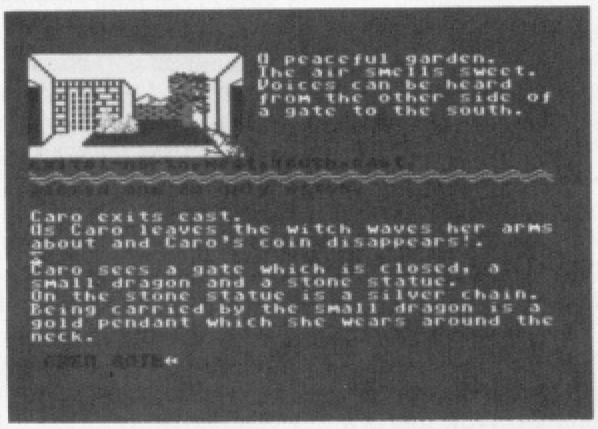
OK, it's prizes time again! And have we got a bag of goodies to dish out this month.

If you cast your minds back to our June issue, you'll remember our Virgin compo where you were asked to tot up the number of Virgin logos embedded in our cartoon piccy.

The answer was, of course, 10 and the first five lucky winners out of the hat were Jason Lee Manning, Bradford, West Yorkshire; Andrew O' Donoghue, Wicklow, Eire; A Irwin, Fewcott, Oxon, Daniel Bambach, Pilley Lymington, Hants and J Moreby, Gosport, Hants. They each receive a Virgin Atlantic bag with a whole collection of goodies including a watch, calculator, T-shirt, a poster and some games.

The next twenty winners each receive a T-shirt, poster and a collection of games. They are Mark Eastlam, Bolton, Lancs; Darran Fawcett, Eastleigh, Hants; Steven Bailey, Corsham, Wiltshire; Adrian Pandit, Inner Park Road, London; Russell Thewlis, Rotherham, South Yorkshire; R Dhanpersaud, Luton, Beds; Michael Chomiak, Havant, Hampshire; R Pattison, Hainault, Essex; Paul O' Neill, Workington, Cumbria; Monthev Yousef Al-Omani, Khalidya, Kuwait; Marco Termeer, Bronkhorststraat 19, Holland; John Lonsdale, Morpeth, Northumberland; X Meange, 91520 Egly, France; David Gould, Bromsgrove, Worcestershire; Murdo Maccrae, Rosshire, Scotland; John Cockley, Dalton-in-Furness, Cumbria; Vic Martin, Whitwick, Leics; Jonathan Smith, Sutton Coldfield, West Mids; I Brotherson, Cheltenham, Gloucester and R Harrison, South Killingholme, South Humberside.

Well done folks and we hope you have fun with your prizes.



Bells of The Ball

The Magician's Ball from Global Software, is all about this geezer called Caro who traipses around an evil magician's castle in pursuit of his beloved Azul. The poor girl's been turned to stone by the evil magician 'cos he was snubbed by her dad, the king. You must release her and, hand in hand with your princess, escape the vengeance of the magician.

It's no mean feat. On your way through 40 plus locations, you'll meet all sorts of nasties — mice, dragons, demons and ... horror of horrors! ... the ghost of Mike Oldfield's *Tubular Bells!*

If you talk nicely to certain characters, you can persuade them to help you out. But be careful how you go — if you don't look where you're going, you'll bump into something nasty and lose your strength. And what heroine wants to be rescued by a super wimp?

The Magician's Ball, which is a mix of text adventure and animated graphics, costs £7.95 on cassette and £9.95 on disk. If all's not crystal clear, phone Global on 01-228 1360 for more details.

Martech Muscle In

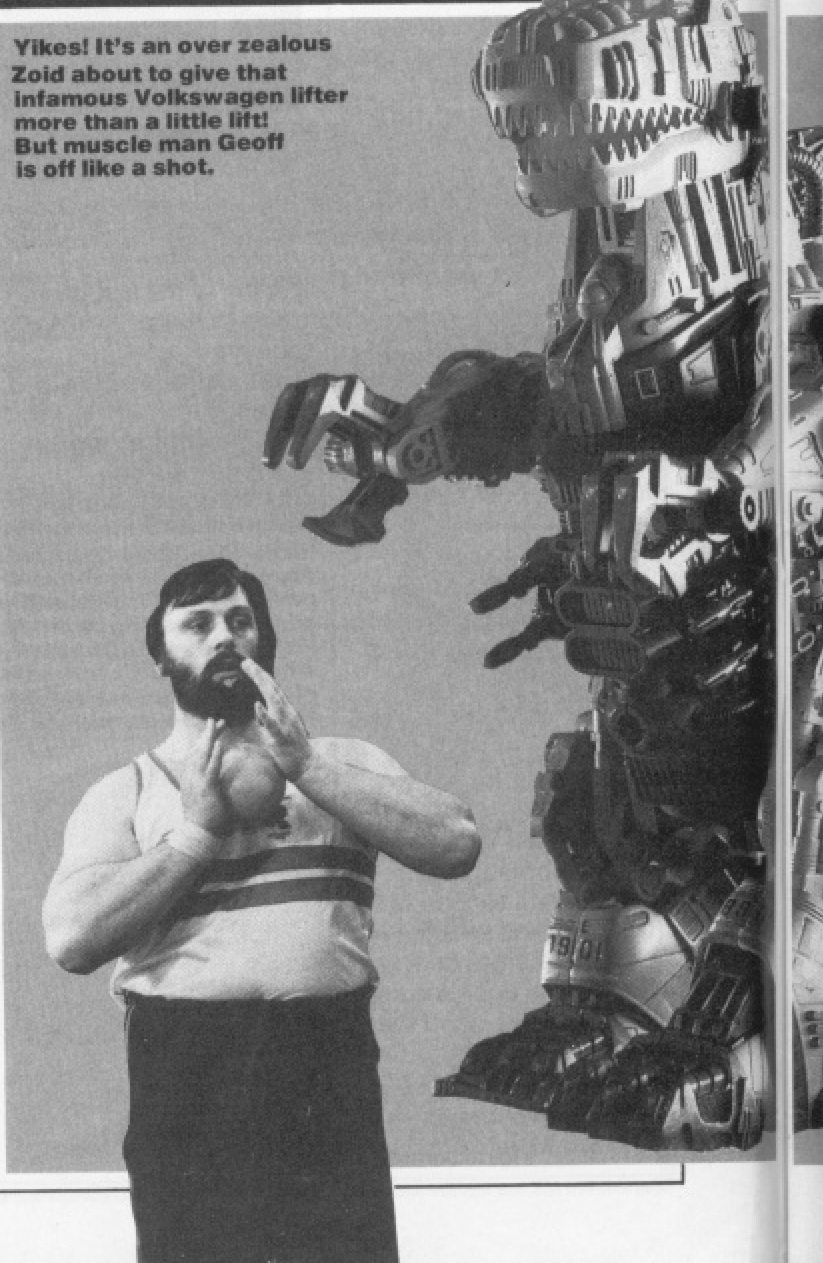
Get a load of this ... Martech have two brand new releases in store for you this autumn.

Zoids is a strategy shoot 'em up based on Tomy's hugely successful robot monster machines of the same name. Martech reckons *Zoids* will let kids live out their fantasies in the most hostile environment ever. Sounds t'riffic!

Geoff Capes Strongman is based on the exploits of that famous volkswagen lifter! And Martech promise it won't be dominated by 'joystick bashing' — unlike other sports simulations we could mention!

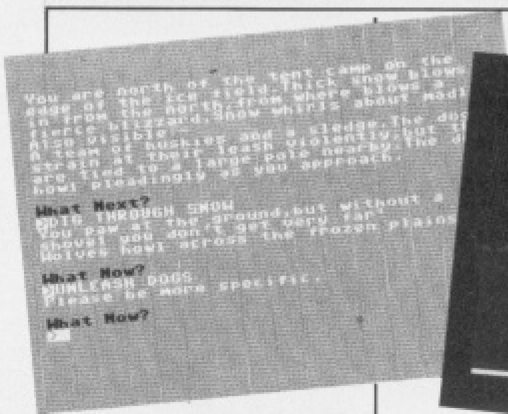
What you've got to do is build up Geoff's muscle and push him to the peak of physical fitness necessary for each of the demanding events.

The games are £7.95 and £8.95 respectively. For more info, muscle in on Martech on (0323) 768456.

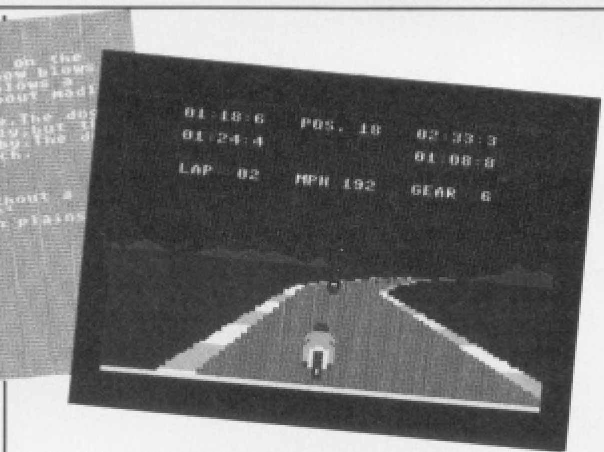


Yikes! It's an over zealous Zoid about to give that infamous Volkswagen lifter more than a little lift! But muscle man Geoff is off like a shot.

OPEN ACCESS



The writing's certainly not on the wall with *Ice Station Zero*



To Hell with the Angels — this is really heavy, man! It's our old friend the racing simulation again. But, in Digital Integration's *Speedking*, you've swopped your racing car for a macho motorbike as you battle it out against 19 other riders on ten worldwide circuits. Track down Digital Integration on (0276) 684959.

And On The 8th Day ...

There were three new 64 adventure games from 8th Day's Games Without Frontiers range. And all were graded in terms of difficulty.

At first there was a 64 sci-fi adventure called *Quann Tulla* which featured robots, automatic defence traps and advanced computer systems on the shattered hull of a flagship. 'Twas your luckless task to bring peace to the federation by retrieving secret manuals, destroying an evil traitor and a top secret ship.

And then there was *Ice Station Zero* where, on the freezing ice-cap of the Artic, a remote polar research station had been seized by the international terrorist, Stirling. You had to find Stirling and halt his dastardly plan to wipe out New York. 'Twas no mean feat.

But finally there came peace and beauty in the guise of *Faerie*, a Midsummer Night's Fantasy. Therein one witnessed scenarios ranging from lost forgotten grottos of the demonic underworld to the open countryside inhabited by eccentric characters. This adventure required much lateral thinking in order to find hoards of treasure and discover the mystic chess pieces.

'Twas rumoured that all three games cost mere £2.50 each and were available by mail order only from Eighth Day Software, 18 Flaxhill, Moreton, Wirral, Merseyside 146 7UH.



Mama Mia, It's A Pay-Off!

Eh bambinos! Donta you getta into the big trouble mi amico did — heza two-bit hoodlum who thoughta he'd maka bet in Luigi's place. Butta you donna do that with a big fish lika Luigi — cos you'll end uppa like chips!

Luigi he sentta in the heavies to call in the marker butta mi amico he

You tella me! Mi amico say letta some other mug play the hero and getta his brains blown out. This fool musta keep outa harm's way while creeping arounda the shady streets ofa New Jersey (*Shouldn't that be the backstreets of Napoli? Ed.*). Who this Ed? She no good, she friend of Luigi's, I think ...

And alla this trouble for a computa game called the *Pay-Off* from Bignose Software (Bignose? Huh! Who ya kidding?). You



couldn'ta pay. Now heza in BIG trouble. Howza him gonna pay it, eh? Robba the bank? Wotta his mama gonna say? I no wanna be in his stilletoes when Luigi gets here! Whatta will happen next?

even hava to pay for it — £5.95 on cassette and £7.95 on disk.

If you stoopid, you canna sniff out more info by calling thosa boys at Bignose on (0268) 417562.

To Beeb Or Not To Beeb?

Well, we hope that's a question not many 64 users will need to ask! But if, for some unexplicable reason, you wish to transform your 64 into a BBC, then Micro Dealer UK have the answer.

It's just been named exclusive dealer of Aztec Software's Commodore BBC Basic Emulator. This natty device will totally confuse your 64 by making it think it's a Beeb. With its 80 column mode, you'll get full hi-res graphics, upper and lower case characters, edit facilities and BBC error messages. Wow!

So, if you've gotta be a Beeb, either fork out £14.95 or call Micro Dealer on (07073) 28181 for further info.

Hard lines

This month, Chris Palmer flexes his grey matter by ploughing through the heavy stuff — books which aren't aimed at the total beginner.

OK, we know there are lots of bright sparks out there — readers who are into the more advanced features of the 64 like PRINT and GOTO and are brave enough to venture into other areas.

So, what better place to start than with artificial intelligence. Wouldn't it be fab to replace dull conversations with your cronies down the pub with some scintillating chat from your computer about the price of LSI chips or the fortunes of Uncle Clive? It would? Then why not check out 'Artificial Intelligence Projects for the Commodore 64'. It starts with an explanation of AI (Artificial Intelligence) and the Turing test and progresses to some simple programs to build up your 64's strategy by analysing its own mistakes in previous games. It also deals with self modifying programs which let the computer rewrite the program it's currently running — dangerous stuff, eh?

The book, which concludes with a look at how to teach your 64 to recognise patterns, is well written and offers lots of interesting and rewarding programs to type in. What's more, it'll give you an insight into one of the most fascinating fields of computer development around.

Next up is the 'Commodore 64 Expansion Guide' which is basically a reference guide that lists and reviews all the bits and pieces which can be forcibly inserted into every available orifice on your 64. But all's not hunky dory — the book's American. So, not only are all the prices in dollars but some of the products reviewed haven't reached this side of the Atlantic yet! Also, the lists of dealers, manufacturers and user groups are all firmly routed in Yankieland.

Finally, we come to a topic that is close to the 64 programmer's heart — POKing, the only way to get your 64 to sit up and beg. What 'Peeks and Pokes' gives you is, would you believe it, masses of peeks and pokes which enable you to pull some neat tricks like protecting your program from being listed and recovering NEWed programs. So, if you haven't already discovered the art of programming, this book will give you hours of fun making it do things it was never meant to do.

Peeks and Pokes
Hans Joachim Liesert
Published by First Publishing Ltd
ISBN 0-958015-551
£8.95

Artificial Intelligence Projects for the Commodore 64
Timothy O'Malley
Published by Tab Books Inc
ISBN 0-8306-1883-X
£12.25

Commodore 64 Expansion Guide
Gary Phillips
Published by Tab Books Inc
ISBN 0-8306-1961-5
£16.20

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· COMMODORE 64 ·









Elite – the ultimate, award-winning space challenge.

Once the privilege of BBC and Electron owners, Elite now takes a giant leap forward – onto the COMMODORE 64. (There'll be versions for the 48K Spectrum and Amstrad soon).

OUT IN DEEP SPACE, THESE REVIEWERS FACED THEIR TOUGHEST TEST.

Already tested by the intrepid explorers of the Commodore press, here – breathlessly – are just a few words from their advance battle reports.

"The Final Frontier?"

(Mega Game, Your 64, June 1985).

"**My favourite**... as absorbing and challenging as the original."

(Commodore Horizons, June 1985).

"To explain every element of Elite would take a book... **you'll run out of energy** long before Elite runs out of things to show you."

(Commodore Computing International, June 1985).

"A brilliant game of blasting and trading... truly a mega-game...**the game of a lifetime."**

(Gold Medal Award, Zzap! 64, May 1985).

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The complete electronic music package for the novice and the professional musician.

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£14.95

ELIDON



The game is based on Faerie mythology which has been popular with the young for many years. The player controls a beautifully animated Faerie which flies around the forest collecting magical objects which are needed to complete the game. There are several hundred rooms which are displayed with very close attention to detail. The music of Grieg is used to accompany the game. Elidon has been awarded several 'Best Buy of the Month' and 'Game of the Month' with Your 64 and Commodore Computing International, plus several excellent reviews on T.V.

£8.95

TUJAD



The Tujad is a Josephson supercomputer that controls a fusion reactor orbiting Earth. It has gone beserk and the future of half the known galaxy is in the balance. You take control of one of the new GEN 19 multidroids, capable of running and flying and equipped with the latest weapons and neutron defensive shields. Your task is to search through the reactor, overcoming the automatic defensive mechanisms and piece together the circuit board needed to stop Tujad.

£8.95

PASCAL 64



Orpheus Pascal 64 is based on standard Pascal with numerous extensions for graphics sound and hardware control. A comprehensive 128 page ring bound manual is supplied with the package which explains with examples, the working of each command. As Orpheus Pascal 64 is expected to be popular with educational and domestic users Orpheus will be providing a free technical update service to customers when they send back their user registration forms.

£24.95

MEGABASE



Records are created efficiently in memory, and data files can be easily saved onto disc and tape (a quick loader/saver is provided). You can define up to 26 fields, which give you meaningful names for later reference. The fields in each record can be either numeric or strings of characters. You do not need to specify limits to the length of the fields.

Megabase provides an instant sorting mechanism, resequencing your file according to any number of fields, in ascending or descending order. Your records stay in order even after records have been added, deleted or changed.

£24.95

Orpheus Ltd., The Smithy, Unit 1, Church Farm,
Hatley St. George, Nr. Sandy, Beds. SG19 3HP
Tel. Gamlingay (0767) 51481/91 Telex 817117 ETHGEN G

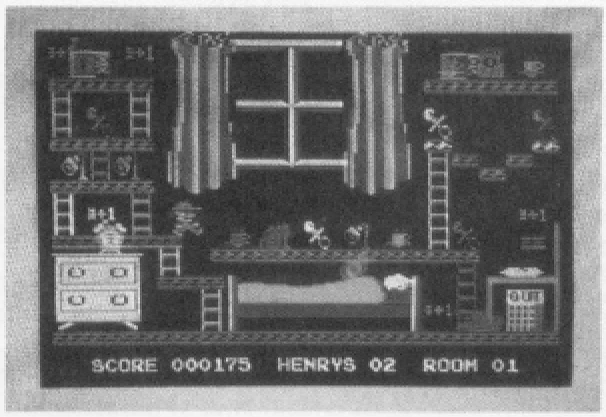
ORPHEUS
NEVER·LOOK·BACK...

Hoorah Henry!

Whoopee! English Software is releasing two new compilation tapes for the 64 — *Henry's House and Friends*, Volumes 1 and 2.

The first volume features *Henry's House*, *Jet Boot Jack*, *Stranded* and *Neptune's Daughters*. Volume 2 contains *Witchswitch*, *Soldier of Fortune*, *Legend of the Knucker* and the inimitable *Henry's House*.

Both tapes will be available at the end of September at a cost of £9.95 on cassette and £12.95 on disk each. If you want to chat to Henry's mates at English Software, phone (061) 835 1358.



Here's Henry's house — don't look like Buck House to me!

A Fistful Of Fun

Activision has produced a handful of new software for the 64 due for release later this month.

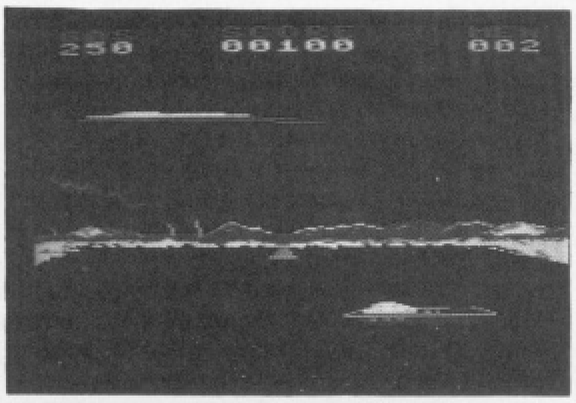
First up there's *Ballblazer* a futuristic sporting simulation with amazing 3D graphics and arcade action. You have to pit your wits against a selection of droids or you can choose head-to-head action with a friend.

If you're into space-age flying, *Rescue On Fractalus* is probably more your scene. This action packed flight simulation takes place on the hostile planet Fractalus and it's your job to save your fellow pilots from certain death. Watch out for the enemy though — the aliens can be very frightening! Oh no ... the mothership is signalling ... you're running out of time ...

But if you fancy having a bash at designing your own games take a look at *Gamemaker*. This easy to use package allows even the complete novice to produce incredible game designs.

Gamemaker features colours, characters and sprite animation and the programmer has included some sample programs to give you a few ideas.

Both *Ballblazer* and *Fractalus* cost £9.99 on cassette and *Gamemaker* retails at £14.99 on cassette and £19.99 on disk. If you wanna know more give Activision a ring on 01-935 1428.



Even you can produce games like this with Gamemaker.

NET words

The world's worst art, good news for software buyers on Compunet, and a warning for those thinking about taking up Commodore's special offer . . . Surya reports on what's new on the nets.

If you've been going green at the sight of BBC (What that? Ed) *owners playing Elite, fear not! The 64 version has just been made available on Compunet. Firebird's classic shoot 'em up and trade 'em up can be downloaded from the Software Park section of Compunet.*

Art Gallery has really taken off! For budding Giles, there's Cartoon Corner, but my favourite is World's Worst Art. This was started by a schoolboy, AW89, and has some . . . er . . . interesting contributions. A black spot in a grey square, for example. I mean, the metaphysical aspect of the picture's metaphorical statement transcends the boundaries of the classic definitions of art to produce an intellectual state in the onlooker which surpasses ordinary description in such a way as (Cut the guff and get on with it — Ed). OK, OK . . .

Compunet is also setting up a number of online Helplines. There's already a Compunet one, to replace Feedback, and the Manpower Services Commission has set up a careers helpline. Others will follow. Helpline begins on page 2100.

Good news for users who buy most of their software through Compunet. As you'll know only too well, documentation is downloaded into the editor. All very well if you've got a printer, but not very helpful if you haven't. As of now, all documentation over 10 frames will be sent by post in the form of the normal manual.

Finally, think carefully before accepting Commodore's special offer on a 64 complete with 1541 disk drive. Rumour has it that this is a blatant attempt to get rid of stocks of the 1541 before the new drive is announced! It could be worth waiting to see what the new drive has to offer.

Microchat

The major news on Micronet this month is that the 64 database is being completely redesigned! This has been brought about by the new telesoftware uploader. This means that more than 90% of 64 software can be made available on the system. According to Micronet, this will mean that at least four new programs a week will be uploaded, and the fact that the system can choose from a much wider range of programs should mean that the quality should improve too.

The improved Micronet Chatline, originally planned for September (the same time as Compunet's version), has now been delayed until November. Micronet blames this on problems with Prestel. The new Chatline will have one real-time chatline, and at least six others.

It seems some of you are a bit confused about this 'real-time' business, so let's explain. The current chatlines on both Micronet and Compunet are what are known as 'archived' services. That is, when you upload your comment it is added onto the end of the queue of messages waiting to be displayed. When your message reaches the front of the queue (which can take several minutes), it is displayed for all to see. The displayed messages are rotated, so that your message keeps reappearing until it is eventually 'pushed out' by new messages coming in. A real-time system, on the other hand, means that your message is displayed the instant it is uploaded.

Micronet has also announced its first real-time interactive game, and the surprise is that it's not MUD. While Micronet will, no doubt, get around to launching a version of MUD eventually, the service is keeping quiet about it. What it will be launching, says Micronet, in September or October, is a game called Round-Britain Race. *The idea, apparently, is to race around a map of Britain using general knowledge to locate hidden prizes. The system claims that players will be able to win about £200 a week in cash prizes. The cost is unknown, but it's expected to be about half a pence per move.*

Whoops . . . Sorry!

Lastly, a correction. A couple of months ago I passed on the news from Compunet that membership of the Independent Compunet Club (ICC) is now free, and that the club administrates the Chatline. It seems that Compunet was either premature or else got its facts completely wrong! Gavin Harris, of the ICC, assures me that the membership fee is still £2.50, and that the club does not administrate Chatline. Talk to Your 64: Compunet, courier mail to YOUR 64. Micronet, mailbox 016311433.

OFF THE HOOK



Stop sulking in silence! Give the Helpline a call and Martin McGuinness will put all to right.

Phew! Yet another busy month on the Helpline over and done with. I do enjoy receiving all your calls and trying to suss out your problems, but I'm afraid that mean old Ed won't let me while away every minute of every day chatting away to you lot. So, please remember, the Helpline's only open from 10am-1pm and 2pm-5pm on Tuesdays and Thursdays. Got that? Right, down to business.

The unfortunate Mr. Laurie Braham of East London is having some rather stringy programming problems. Having just come to his senses by swopping his Speccy for a 64, he's now stuck on using Mid$ in his programs. I hope the following will cheer you up, Mr. Braham.

```
10 Let AS="MEGABRAIN"
20 PRINT MidS(AS,3,3)
```

Line 20 tells the computer to look at A$, which holds MEGABRAIN, and then move three characters into the string and print out the next three characters. Thus, GAB will appear on the screen.

Mrs. Clare Molloy of Leeds wants to know what assemblers do and which are the best on the market. Well, assemblers are programs that change assembly language, a low level programming language, into machine code, the 64's mother tongue. And the two which I reckon to be tops for the 64 are the cartridge based Mikro by Supersoft which costs £57.50 — pricey but worth it, and, for those who prefer a cheaper model, there's Zeus by Crystal Computing at £9.95 and on cassette only. Contact Supersoft on 01-861 1166 and Crystal on (061) 205 6603.

Peter Adam's not a happy man. He's narked to see that his Easyscript instruction manual has omitted how to use the 1520 printer/plotter with Easyscript. Fear not, Mr. Adam! The problem can be rectified by the following commands:

```
Open
3,6,3:Print#3,0:Close 3
Open
6,6,6:Print#£6,1:Close 6
```

Then load Easyscript by typing:

```
Load "*",8,1
```

When you want to print out from Easyscript, use the following commands:

```
F1/0/D6 (return) P
```

If anyone else is having problems with Easyscript and other types of printers, then Commodore will dish out some handy leaflets. To find out more details, phone (0232) 205252 and ask for the Information Service.

Finally, a lot of you have phoned up with complaints about Squeezy (Programmer of the Year, Issue 11). OK, we admit that some of the character graphics were a bit dodgy to read — sorry! But, to compensate for such a boob, if you send me a blank cassette along with an sae, I'll send you a pristine copy of Squeezy. Howzat? But, don't all of you try to get in on the act — this doesn't apply to all Your 64 listings, just those from Keyboard Kapers or Programmer of the Year.

Right, that's my lot. Catch you next month.

N A C C E S S

HACK Attack!

Phil South *POKEs more fun into your games. Send your POKEs to Hack Attack, Your 64, 14 Rathbone Place, London W1P 1DE.*

Yes, I'm back (and front, surely!) again with a wealth of superb hacks for your notebook. Top names, top games ... (OK, wiseguy, stop. I know we pay you by the word but this is ridiculous!)

Mailbag time again. Wow, there's a lot of stuff here. You guys (and gels, sexist!) don't muck about, do you? For instance, here's a note from Dominik Imseng of Ruschlikow, listing over 72 POKEs for top games! Well, I'm in awe of your persistance, Dominik! Well played! Here, for the benefit of all of you who aren't Dominik, is a resumé of some of the more interesting items:

Battle Zone
POKE 8908,100

Bruce Lee
POKE 5686,128
5672,128

Cavelon
POKE 23789,255

Hunchback
POKE 5704,50
9521,44
9521,234
9522,234
9523,234

Jumping Jack
POKE 27904,173

Miner 2049'er
POKE 9450,173
2652,165
2471,255

Pitfall
POKE 5383,255

Quest For Tires
POKE 7341,99
11485,125
14864,0

Ghostbusters
name= (Return)
acc. no. =458
(Gives you $1,000,000!)

Phew! That's just the Reader's Digest abridged version. The whole list ran to two sheets of A4 paper! That's not a letter, it's a novel!

David McLaughlin of Renfrewshire, Scotland bleats that two of our cheat modes — horror of horrors! — didn't work. The incriminating games were Cavelon by Jetsoft and Hunchback from Ocean. Ah well ... OK! So I screwed up! I can only say sorry and refer you to Dominik's POKEs above. They should satisfy you until I can find out what's gone wrong (stumble, rustle, curse, click, tap, tap, tap ... general research noises ...).

Enough grovel, back to the POKEs

Now, a veritable flood of two letters concerning Entombed. I must say, I've been waiting for this one to come up. The two cheesy cheaters who came up with the solution are (probable incoming pseudonym) Michael Future of Peterlee, County Durham, and Scott Moore of Fixby, Huddersfield. And the answer is ...

OPEN1 (Return)
Press Play on Tape

When 'FOUND ENTOMBED' is displayed, press the Commodore logo key. Now enter the following:

```
POKE 783,1
POKE 830,34
POKE 832,48
SYS 62828
```

When the game has finished loading type:

```
FOR K=679 TO 767: POKE
K, PEEK (K+8192):NEXT
FOR K=828 TO 1023:
POKE K, PEEK (K+8192):
NEXT
POKE 816,60: POKE 817,3
```

Then type LOAD "NOVA". The border will flicker for a while —when the display says Ready, type in these last POKEs:

```
POKE 2208,1
POKE 2213,141
POKE 2214,231
POKE 2215,108
SYS 2128
```

And all this for unlimited energy. (You'll probably need it to type this lot in!)

Julian Smith of Sheffield sent me these special code numbers for Bounty Bob Strikes back. Try 5, 6, 40, 49, 666, 2049 plus F3 to display message and F7 to alter the game according to the message you got.

POKE of the month goes to J. McCaffery of Liverpool, for the long awaited Boulderdash POKEs. They are:

Immunity from fireflies/butterflies —
POKE 29004,96
Infinite Time —
POKE 29885,96
Infinite Lives —
POKE 35589,96
Start by — SYS 36457

But be careful, cos the POKEs for the version of Boulderdash you get free with Rockford's Riot differ. Here they are:

Immunity —
POKE 28988,96
Time — POKE 29869,96
Lives — POKE 35563,96
Start by — SYS 36431

That's your lot! See you next month with more cheats, more POKEs and a program to bump up your Elite rating.

This is the one for you

The commodore HORIZONS show

***Saturday 26th and Sunday 27th October
The Novotel Exhibition Centre
Hammersmith***

Events • Competitions • Advice • Bargains

More an experience than just a show!

We're organising a weekend of fun, information and bargains. There will be events for everyone to join in, advice centres to answer all your questions, competitions with great prizes, discount schemes and personalities.

We're providing extra catering and rest areas for those tired exhibition feet.

Plenty of bargains

We're encouraging all our exhibitors to bring lots of bargains and special offers for you.

A show with pedigree

The Commodore Horizons show is sponsored by Sunshine Publications, (publishers of your favourite Commodore magazine and Popular Computer Weekly) and Computer Marketplace Ltd., organisers of the Acorn User, 6809 Colour and Amstrad User Shows. So you can be sure its going to be a great show.

Miss the queues, save money. Win a Koala Touch Pad

Use the coupon below and not only will you get into our 'fast' lanes and miss the queues but you save £1 per ticket as well. You also enter the prize draw and could win a Koala Pad Touch Tablet too!

Computer Marketplace (Exhibitions) Ltd., Part of the Rushworth Dales Group, 20, Orange Street, London WC2H 7ED.

TO: Computer Marketplace (Exhibitions) Ltd., Part of the Rushworth Dales Group, 20, Orange Street, London WC2H 7ED.

Please rush me ________ (Qnty) adult tickets at £2 and ________ (Qnty) under sixteen tickets at £1. for the Commodore Horizons Show. I understand I am eligible for the prize draw. I enclose my cheque/P.O. payable to

Computer Marketplace Exhibitions Ltd., for £ ________

Name: ________

Address: ________

________ **Postcode:** ________

MISSIVES

Something bugging you? Or maybe you just want to share your wit and intelligence with fellow readers. Then get scribbling — you could even win a tenner.

Write to Missives, Your 64, 14 Rathbone Place, London W1P 1DE.

CHEERS FROM DOWN UNDER

Over here, *Your 64* is moderately priced and value for the information it gives — there are a lot of other mags containing nothing but rubbish! *(Here too! Ed.).*

As a fairly recent convert to micros, I think product testing articles like 'Joystick Jury' are invaluable since they not only benefit the consumer but hopefully persuade some manufacturers to pull up their socks and improve their products.

Maybe you could feature an article on joystick control in programs such as flight simulators.

Wayne Campbell, Bunbury, West Australia.

Thanks for your suggestion, Wayne. P'raps this would be a good sequel to our Joystick Jury article. What do the rest of our readers think? Ed.

YOUR OZ?

First off, I'd like to commend you on your great mag and report that *Your 64* is very popular over here in Tasmania. The main reason why we enjoy *Your 64* is cos it's got so many games reviews and colour features.

I think you should have an 'Oz Corner' by finding and appointing an Aussie 64 correspondent to report on what's happening Down Under. I know a lot of Aussies buy *Your 64* and would love the Brits to share all our news. We could comment on Australian produced software and hardware and on our own computer network, Viatel, so you lot could have a peek at the mostly ignored Australian computer business.

Tim Patterson, Tasmania, Australia

Do I sniff a Missives takeover bid from our friends Down Under? Ed.

FORTH, RIGHT?

I recently purchased a copy of Forth+ by Melbourne House. Never having used this language before, I was disappointed that the documentation with the program did not include a beginners guide or any demonstration listings to aid beginners like myself (and probably 90% of 64 users).

I would therefore be grateful if you could recommend a book for beginners and possibly start a series on Forth along the lines of the Machine Code Tutor, which was excellent.

David Clasper, Caithness, Scotland.

Well, you've come to the right place — take a look at our 'Mind Your Language' article in this issue. Any other readers trying to cross the language barrier? Ed.

COMMODORE CATASTROPHE

A few months ago, I ordered a book and two games through a Softpost catalogue. One of the games wouldn't load so I returned it, asking for a replacement.

Within a week it was returned with a note saying the tape had been tested and that there was nothing wrong with it, just that the program takes 10-12 minutes to load. But, the tape still failed to load.

In disgust, I returned it again, asking for my money back. A few days later I received a phone call — Commodore wanted my invoice number. Two weeks later I received a refund with no letter or any sort of apology.

Could any *Your 64* readers tell me who these faceless Softpost people are? They certainly don't boost Commodore's image.

Robert Lowther, Exhall, Coventry.

OK Softpost, what've you got to say in your defence? Ed.

WAFER DISKETTES

I'm interested in getting a Wafer Drive since I don't really want to fork out £200 on a disk drive. But I'd like to know if it's much cheaper than a disk drive, if the error rate's higher and how much faster it is?

Ian Baxter, Taunton, Somerset.

If you're looking for a faster, cheaper alternative to the 1541 then plump for Entrepo's 8500 Quick Data Drive. Marketed by Dean Electronics at £99.99, it's £100 cheaper than the 1541 and loading time's about three times faster than a disk drive and yonks faster than the C2N — about 15 times the speed. Error rate's roughly the same as the 1541 but lower than the C2N.

But I'm afraid all's not hunky dory. Since the device is pretty new, there's a dearth of commercial software up and running on it. Some games, such as Epyx's Impossible Mission are available, and more wafer games are hitting the market.

We will be looking at ways to boost the speed of the C2N and 1541 in a future issue so, keep your eyes peeled! Ed.

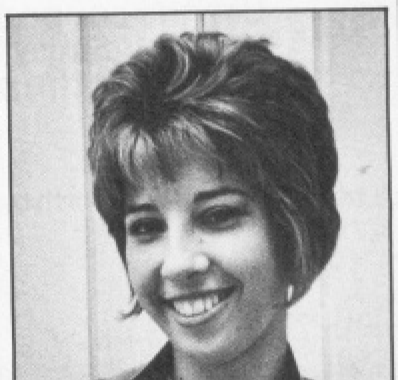
LOVE AT FIRST BYTE!

Don't you think that Dave Freeman's 'high score' of 713,600 for *Beach Head* is ridiculous as the game ends once you've destroyed the fortress — well, it does in my version? I've made an interesting score of 327,200 on *Beach Head II* (it took me about half an hour!). Also, is it necessary to send a screen-shot with the hall of fame?

Finally, I saw Teresa Maughan in the Top Ten Classics and was instantly hooked! She's great, wonderful, delicious and ... I can't find the words! I hope to hear from you one day Teresa ... (*This could be love! Ed.*)

Thierry Blanchot, Metz, France.

Eh bien, mon ami, it seems that you ought to get working on that Beach Head high score instead of vying for an even higher score with our Production Ed! Access, the US company responsible for Beach Head, told us that the highest score they've yet received was 1,257,000. And, yes you must send a photo with your high scores, else how can we judge whether or not you're a suitable match for our Teresa! Just to cheer you up, here she is again. Ed.



GIGA GUIDE

I'm an avid reader of computer material and magazines, although I don't understand a lot of it!

Although there's a wealth of useful info in *Your 64*, there's no proper index for my collection so I have to thumb through all my issues for the juicy bits. So, how about a *Your 64* centre page pull-out section which can be collected over a year or so and built into a handy layman's reference guide?

The pull-out sections could fit into a binder and contain the most used references, tips, pokes and short programs and listings, with an index at one's finger tips. For a small extra, it would keep your readers hooked until the guide was completed.

Bruce Belton, Henfield.

I see your problem but, rather than re-hash old material, it might be better to provide an index to slot in at the back of our flash new Your 64 Binders (see page 53). I know it wouldn't give you instant access to all those elusive hints 'n' tips, but it might point you in the right direction. What do other befuddled readers think? Ed.

YOUNG FRANKENSTEIN

Please, please, please — get some mug to write a 'Dr. Frankenstein's DIY Rejuvenation Program'! I sat down to fill in your Reader Survey and was stumped by the very first question: "How old are you?".

It's not that I didn't know the answer but just that, at my tender age, I'm already classified with the geriatrics. You could've started the top bracket at 60 or even 50 to soothe my bruised ego.

By way of compensation I demand to be permitted to write a new feature entitled 'Senior Citizens Sixty-Four'. All programs will be written in Basic as Machine Code would leave us breathless. I already have a program for a robotised bath chair!

If I'm not allowed to write the column, I will sue *Your 64* for a lifetime supply of monkey-gland.

Colin Hurt, Mattersey, Doncaster.

I was a bit narked about that question too! And, as for your final demand, no hope buddy — we've exhausted all our supplies! Did our survey ruffle any other feathers? (Shouldn't that be grey hairs?) Ed.

ARCADE ACE

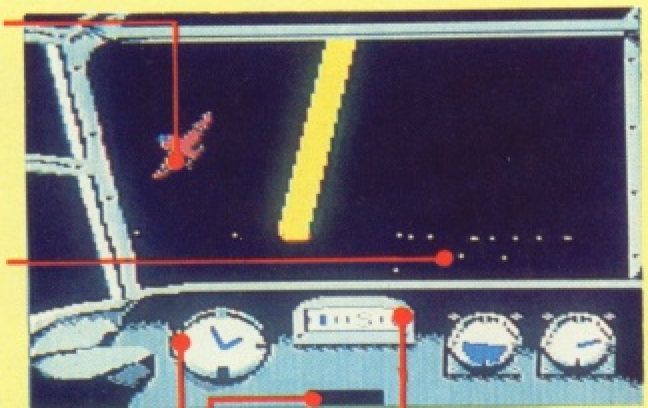
Ace's not hogging all the action this month — he's sharing his space with Dambusters *hot shot,* Y64 *reader* Andrew Clarke. *But, not to be totally outdone, he's lined up a mega compo for you* Summer Games II *fans.*

Jeez! Hot, innit? I tell you what, my mailbox is certainly hot. I've got a pile of mail up to my butt which I've got to sort through. Sheesh! Oh well, press on.

I seem to be getting a lot of mail about US Gold's *Spy Hunter,* like this one from John Calvi of Victoria, Aussieland. He suggests a way to traverse the demolished bridge. After receiving your new spy car from the weapons van, instead of pulling onto the road, bump along the hard shoulder as far right as possible. This way you can leap the gap and continue on the other side. If the Enforcer (the armoured truck which fires sideways at you) bothers you, wait until it's almost level then slam on the brakes. (I've often wondered why

DAM AND BLAST!

You've seen the film, now play the game! *Dambusters* is a very fancy flight simulator from US Gold. It takes you though a wartime mission to destroy German dams by using the famous bouncing bombs.



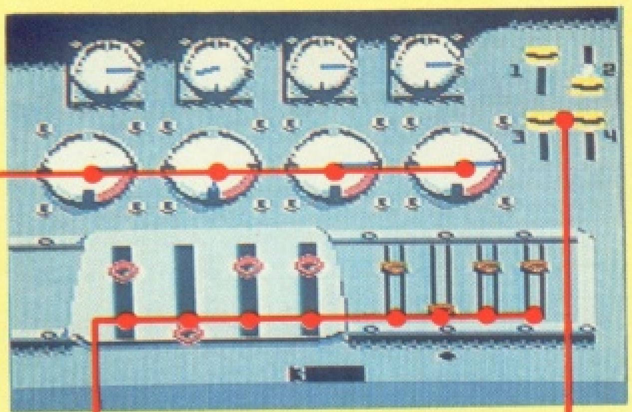
Don't let this enemy plane scare you — the front gunner (screen 2) will zap him away. Try to shoot up as high as poss cos the enemy always escapes by soaring up.

Strike a light! Keep the gunner's crosshairs below the horizon to take out these searchlights. Aim low and fire 'til they go out.

Unless you're approaching the dam, don't drop below 100 feet else you'll risk scraping your wings along the ground when turning.

Here's your message box. The intercom will tell you if one of your crew needs help. The top nobs are the engineer (screen 6) and pilot (screen 7). Give these top priority.

Right, now you've gotta suss out your course bearing. Plot the course on the navigator's screen (5), follow the red line on the cockpit compass and off you go!



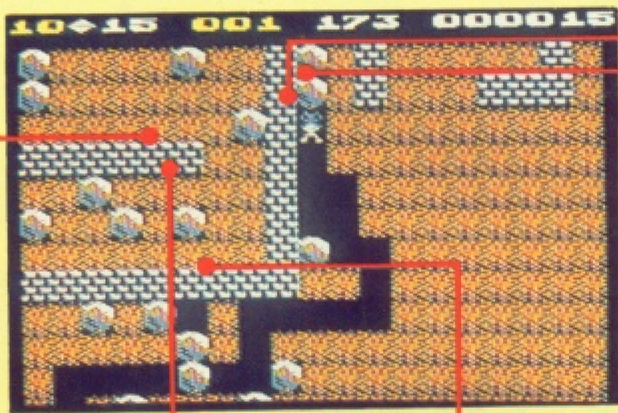
Watch the lower dials. A flashing needle means the engine's overheating. So, if you don't pay attention, the plane will catch fire.

Keep your throttles and boosters level or your engine will conk out. On take off use half boosters and full throttles, but reduce to three-quarters once airborne.

Here are your extinguishers. Only use them when the throttles can no longer control the engine.

IT'S A RIOT

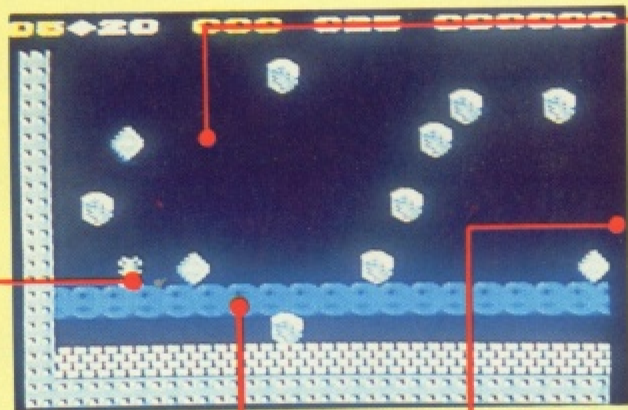
***Rockford's Riot* is a mega version of its predecessor, *Boulderdash.* This time round, poor old Rockford's got to battle his way through heaps of problems in 16 different caves.**



Zig-zag back and forth along this section to drop the rocks on the enchanted wall, then go back underneath it to collect the gems. But hurry! There's a time limit.

One enchanted wall . . . the first rock to fall on it activates it but any further rocks falling through will become gems.

Right, you've done your stint as a super hero and blasted the wall. Now, move along this level, clearing all the earth away from under the enchanted wall so the rocks can fall through.



Stay here and scoop up the gems as they hit the water. If you're lucky, you'll soon encounter the gem which opens the escape portal. Don't make like a rolling stone . . . just stay put!

Act quickly — you must grab the gems before they sink through this water into the bottom section. Once they fall through, you'll never get them back.

This way to the exit. Burrow through, but time's short so make it snappy!

people in American B-movie car chases don't do this!). Pull in behind him and blast him to smithereens. (Oh look — a smithereen!).

Andy Macklin of Hampshire agrees, but adds that by doing this you'll also boost your points and you won't get bombed by the helicopter. This method may be a sure fire way to top hundreds of thousands of points but it's a mega bore. Poor Andy has to relieve the boredom of watching the hi-score running itself up by watching Blue Peter! Well, each to his own, I suppose . . . But Andy did raise a salient (*What's with the posh words, Ace? Ed*) point at the end of his letter. Why are all the best games flying in from Yankieland — ain't we got any good programmers? Software people take note.

Brian Duffy of Glasgow has a nifty tip for all of you who're narked by incessant bombing from the birds in Ultimate's *Staff of Karnath.* He says to stand right up against the Obelisk when depositing pieces of pentacle. This way, the bird won't get you when you're changing your spell to Baracata and back to Forthrin. Thanks, Brian. I'm still curious to know exactly what the birds are bombing me with. Eggs? Nah!

Fired by Elite

Paul Walton of Tameside, Greater Manchester has sussed out how to make hefty profits in Firebird's *Elite.* Get your greedy paws on computers from rich industrial planets, furs from poor agricultural planets and Gold, Platinum and Gems — there's no 35 units limit on these. Spiffing!

Still with *Elite,* Ceri Rogers of sunny Southampton reckons that by typing in YOUNG.ONES on the hi-score table, you'll get unlimited energy. Ceri's got another tip which'll do nicely — a back door on Statesoft's *Frak.* After hitting that hi-score, press Shift Lock then type AMERICAN EXPRESS. Voila, you can't be destroyed.

David Stacks of Tamworth, Staffs rounds things off with an old chestnut from Jeff Minter's *Revenge of the Mutant Camels.* Type in GOATS to prevent all your energy from being drained.

Well, that's all I've got room for this month cos Ed's cut my space to squeeze in this ace Sumer Games compo. Keep on notching up those hi-scores and sending in that fan mail cos I'll be back in action next month. Bye-eee!

HERE COMES SUMMER

***Summer Games II* is another joystick wrecking, multi-sports simulation from US Gold/Epyx. It includes a host of events such as cycling, fencing, kayaking, triple jump, rowing, high jump, javelin and horse riding.**



The only way to complete this screen is to get through the wall into the next chamber. Just burrow up to here and wait until the first amoeba chases you. Then, run four or five spaces to the right and boom! — the rock will strike the amoeba, blasting a hole in the wall.

Here's a handy rock. It'll fall down and prevent the remaining amoebas from following you to the enchanted wall.

Wow — what whizzo multicolour graphics! One of these lights comes on if you hit your opponent, the other if he hits you. Pretty, innit?

Unless your opponent's human, don't bother moving from left to right on the 'piste' — that's the name of the mat, not a reference to apres-match beverages! The Computer plays a straight back and forth game.

Ignore the crowd — they're a bunch of dummies. I think they really came to see Torvill and Dean but got fenced in here by mistake!

Your opponent's either a fellow human (if you can find one) or a computer droid. This game gets more like Piers Anthony's Split Infinity books every day!

Hands on experience! Watch your opponent's hands as well as your own — they simulate the correct formal stance for this sport. Jolly good show!



Once you've discovered you can walk around the whole screen, it's tempting to shift up here to try for these gems before they fall. Don't try it — it's impossible.

So, you reckon all you've gotta do is sail through these gates and all will be hunky dory. Well, it ain't as easy as it looks! To pass through some of the gates, you'll have to backtrack and go through tail first. This whitewater lark's certainly not all beer'n'skittles!

Rocks are a real pain in the bows. Avoid them! They slow you up and shove you in the wrong direction — not a lotta fun in a timed sport. Practise swanning around them.

Phew! This game's almost as tiring as the real thing. Since there's no auto-repeat when you push your joystick in any direction, the key to success is persistence — struggling your way upstream to the next gate.

Always think a gate or two ahead and try to get yourself in the right position. This game needs a lot of practice in order to excel.

OK, this one's a cinch! Downstream reverse is one of the easiest gates — not to be confused with an upstream where you must be careful not to drift backwards else you'll gain a time penalty. Keep the red marker on your left at all times.

SUMMER GAMES COMPO

OK, so you haven't yet got hold of a copy of *Summer Games II* — but you're itching to get your joystick into action. Well, here's your chance cos US Gold is giving away 25 copies! Just answer these three simple sports questions by circling the correct answers and entering the letters on the back of the envelope. Then complete the coupon and send your entry to Summer Games Compo, *Your 64*, 14 Rathbone Place, London W1P 1DE.

1. Who won the Wimbledon Mens Singles this year?
a John Lloyd
b Lloyd George
c Boris Becker

2. Which Football Team's based at Elland Road?
a Leeds United
b Manchester United
c United Biscuits

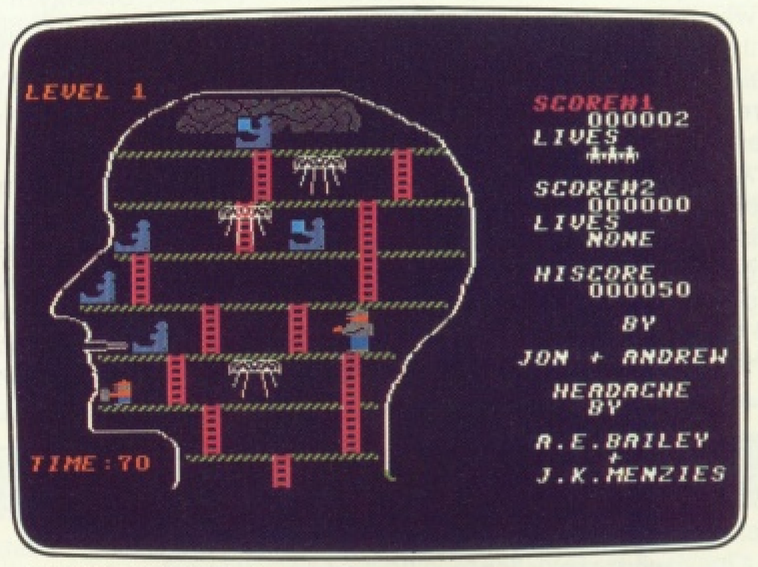
3. Where were the first World Games held?
a Crystal Palace
b Buckingham Palace
c Alexander Palace

Name ....
....
Address ....
....
.... Postcode ......

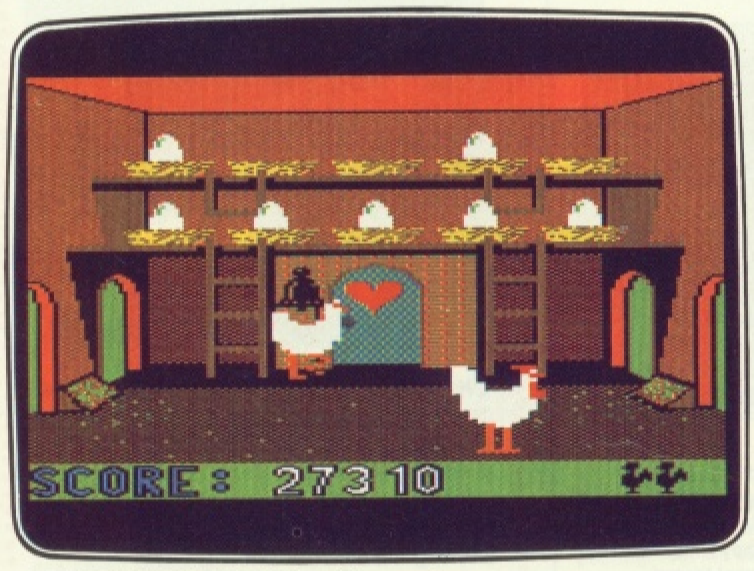
SILVER RANGE . . . Seeing is believing



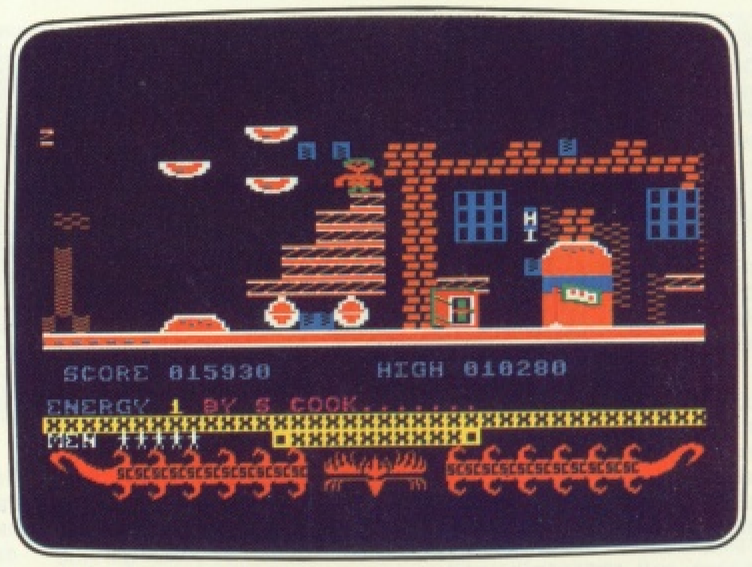
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HEADACHE Arcade
Nervous Ned's quest to serve the Brain



CHICKIN CHASE Arcade
Ruling the roost can be a hard life



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Twenty circus rings to escape

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Twenty holds full of pirate loot
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Strange creatures emerging from the pits
019 **HEADACHE** Arcade
Nervous Ned's quest to serve the Brain
020 **ZULU** Arcade
100 golden masks hidden in a magic maze
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150 different haunted castle chambers
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Recover the sacred statue of Estra the Snake God
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MISS ADVENTURE



Our fave wily wench may be over the moon about Level 9's latest gembo, but she soon comes down with a bump to answer your pleas for help.

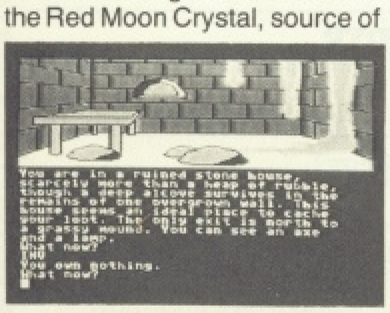
A couple of months ago we looked at *Mordon's Quest*, a game that tried — and failed — to live up to the reputation of that all-time great adventure, *Colossal Cave*. But this month we have a game that, in my opinion, succeeds in every way where *Mordon's Quest* failed. From the moment that (in Level 9's immortal prose) your nostrils flare to 'the unmistakable smell of dragons', you're up to your helmet in magic, mystery and suspense.

There's so much in *Red Moon*, the game in question, that reminds me of *Colossal Adventure* that I won't bore you with every niggly detail.

There are over 200 locations with a piccy for every one though, let's face it, Level 9 aren't renowned for their artistic ability! And the atmosphere is so thick with magic you could cut it with a dragon's tooth. What's even more whizzo is that not only does *Red Moon* borrow so many goodies from earlier adventures, but it's completely original at the same time. That's no mean achievement — whoever wrote the script for *Red Moon* (my guess is that Pete Austin had a hand in it) deserves a pat on the back.

Mooning Around

The aim of the game is to recover the Red Moon Crystal, source of all Magik. But, to do so, you must do battle with some very formidable foes. Magic and fantasy rule supreme in this game. This makes it a very pleasant change from Level 9's more recent games which were all, dare I say it, a bit too hi-tech for li'l ol' me. Science fiction's all very well but, to my mind, there's nothing to beat a good round of fisticuffs with an overweight troll!



Red Moon destined to be a star?

The only thing which bugs me about Level 9's games are their refusal to specify which word they're having problems with. *Red Moon* responds with catchphrases like "Wirts Mirt Bud", or just "Eh?". There may be a healthy range of responses to errors but I'd be happier if the game just came clean and said "I don't understand 'Norbert'", or something similar.

And make no mistake, this is a great game. Great descriptions, OK graphics and a magical scenario in every sense. I can hear you all yawning out there but I'm afraid it's got to be said — when it comes to adventuring, Level 9 have more treasures in store for you than anyone else.

Classic Adventures

Also worth a mention this month are a series of adventure games called Windham Classics, based on a selection of your fave classics such as *Swiss Family Robinson, Treasure Island* and *The Wizard of Oz*. Latest additions include *Alice in Wonderland* and *Below The Root*, based on The Green-Sky Trilogy by Zilpha Keatley Snyder — eh?

Each game puts you in the role of hero or heroine as you set off on a journey through the story of your choice. So, if you're more at home with a 64 than a chunky novel, give Windham Classics distributors, W. H. Smith, a call on (0533) 551196.

Fan Mail

Miss Adventure sets sail this month for a well-deserved rest. However, there is just time to send greetings to M. Zaman who wrote in saying how much he or she liked this page. Well done, M. Zaman, you sure know the way to a lady's heart. MZ also has a good word for those of you stuck in *Gremlins*. Take the camera (but NOT the remote control unit) into Dorothy's Tavern and press the button a couple of times. Thanks, friend.

Mr (I think) R. Bramble writes in, pleading for help with *The Hulk* amongst other things. If you really can't find more than three locations in the game, Bramble, I suggest you try looking around a little more carefully. First, have you got out of the dome yet, and if so, have you noticed that there is more than one dome? Check those buildings carefully, they're not as identical as they seem.

David Legge is having trouble with the witch in the passage in *Twin Kingdom Valley*. He wants the key, and she won't hand it over, but I suspect that if you offer her something useful in return she may consider doing a swop.

Simon Mercer joins the enormous number of people who keep writing in about *The Hobbit*. Considering how long this game has been out, I'm amazed that so many adventurers are still being stung, captured, eaten, or just plain lost in its various locations. To all who are having difficulty, can I recommend that you cast your eyes back through the Helpline and select one of the many heroes who have offered help on this game?

Mention of the Hall of Heroes reminds me that we will no longer be publishing telephone numbers except in special cases. The reason for this is that some of you orc-bashers have been melting the wires with your cries for help, and a number of people have found themselves unable to cope with the huge response and late-night calls. So from now on, with one or two exceptions, it's to be sae's and contact by post only, please.

HALL OF HEROES

Hall of Heroes
Twin Kingdom Valley, Lords of Time
Jason Shields, 4 Fell Croft, Dalton-in-Furness, Cumbria, LA15 8DD.
Urban Upstart
Michael Ferris, 6 Pinfold Close, Mirfield, W Yorkshire, WF14 9JB.
All Level 9 games, Mysterious Adventures, Interceptor Adventures, plus the Ket Triology, the Zork Trilogy, Deadline, Sherlock, The Hobbit, Valkyrie 17, Urban Upstart, Eureka! and many more ... Nick Walkland, 84 Kendal Road, Hillsborough, Sheffield, S6 4QH.
Heroes of Karn, Hobbit, Valhalla, Sorcerer of Claymorgue Castle, Golden Baton, Lords of Midnight J Walker, 23 Westfield Drive, Harpenden, Herts, AL5 4LR.
Starcross, Aztec Tomb 1, Dallas Quest, Tracer Sanction, Urban Upstart, Enchanter Marco van Slageren, Langswater 299, 1069 E Amsterdam, Holland.
Eureka
Dorothy Spencer, 68 Skerton House, Mainway, Lancaster, LA1 2BG.

Beatle Quest Compo

Beatle Quest is a fab adventure game where you, as a futuristic freak, go tripping to the Land of EMI to rub shoulders with the Fab Four. Number 9 Software is dishing out copies of the game to the first 20 compo entrants to answer these three gruelling questions correctly by the closing date of October 31st. All you have to do is circle the correct answers and enter the three letters on the back of the envelope.

1 What was the original title of the film Help?
a Octopussy's Garden
b Beatle Quest
c Eight Arms To Hold You

2 Who is Appollo C Vermouth?
a Paul McCartney
b Brian Epstein
c Jeremy Hillary Boob Phd

3 What song started out as Scrambled Eggs?
a Cheese and Onions
b Yesterday
c Yer Blues

Fill in the coupon and send it (or a photocopy of it) to Beatles Compo, *Your 64*, 14 Rathbone Place, London W1P 1DE.

Name ....
Address ....
....
.... **Postcode** ....

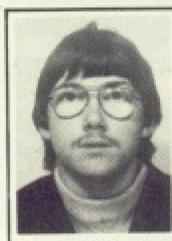
Beatle Quest Special Offer

OK, so you're such a mega Beatles fan that you just can't hang around 'til October 31st to see if you've won a copy of *Beatle Quest*. Well, fret not cos those generous folks at Number 9 are offering *Beatle Quest* to *Your 64* readers at a special price of £7.95 — that's £2 off the retail price of £9.95.

Just fill in this coupon and send it with your cheque for £7.95 to *Y64 Beatle Quest Offer*, Number 9 Software, 47 Saint Georges Avenue West, Wolstamton, Newcastle-Under-Lyme, Staffordshire, ST5 8DF.

Name ....
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Y64 TOP TEN CLASSICS


Andrew Sutton
28,237

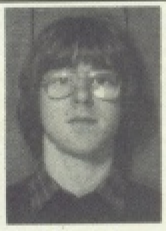

Adam Bell
29,860


David Edwards
29,883

1 (up from 2) **IMPOSSIBLE MISSION**
CBS/EPYX

2 (down from 1) **INTERNATIONAL SOCCER**
COMMODORE


Steve Mulholland
15-0 (level 9)


Alex Booth
13-0 (level 9)


Giancarlo Bernini
12-0 (level 9)


Jennifer Halligan
Level 1


Karl Mc Shane
Level 1


Andy Clarke
Level 2

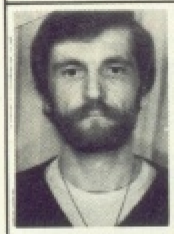
3 (NEW) **THE DAMBUSTERS**
US GOLD

4 (4) **STAFF OF KARNATH**
ULTIMATE


G Hugill
6.39pm


Andrew Grifo
6.43pm


Gary Patterson
6.43pm


P Eves
765,256


D Reynard
798,600


David Read
836,400

5 (down from 3) **BEACH HEAD**
US GOLD

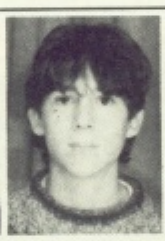
6 (up from 9) **RAID OVER MOSCOW**
US GOLD


Ian Margetts
922,000


J P Willis
498,700


Colin Burroughs
496,400


Nigel Bell
8 World Records


Paul Chappell
8 World Records


Duncan Campbell
8 World Records

7 (RE-ENTRY) **SUMMER GAMES**
QUICKSILVA/EPYX

8 (down from 7) **BRUCE LEE**
US GOLD

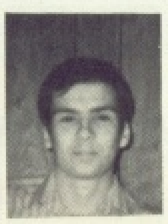

David Read
5,467,950


Philip Alder
2,246,300


Andy Clarke
1,055,675

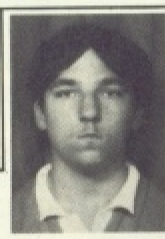

Adam Bell
70,453


Christian Risby
75,542


Neil Barry
98,416

9 (RE-ENTRY) **DALEY THOMSPON'S DECATHLON**
OCEAN

10 (RE-ENTRY) **DECATHLON**
ACTIVISION


D Savic
11,350


Shaun Oldale
11,345


Benji Dale
11,101

Y64 TOP TEN HOT SHOTS

Pos	Last	Title	Publisher
1	1	**PITSTOP II**	CBS/EPYX
2	2	**INTERNATIONAL BASKETBALL**	COMMODORE
3	4	**ELITE**	FIREBIRD
4	RE-ENTRY	**SOFTAID**	QUICKSILVA
5	NEW	**SUMMER GAMES II**	US GOLD
6	NEW	**BC II GROG'S REVENGE**	US GOLD
7	NEW	**FRANKIE**	OCEAN
8	10	**HYPER SPORTS**	IMAGINE
9	NEW	**SPY HUNTER**	US GOLD
10	NEW	**CAULDRON**	PALACE SOFTWARE

Want to win fame and fortune? Get your mugshot among Y64's high scores — and you could win not only a prize, but notoriety on the pages of Your 64.

WHO DARES WINS!

Why spend time poring over somebody else's chart when you can star in your very own games league? The Top Ten Classics show the highest scores notched up on your current fave games while our Hot-Shots reflect the games you're yearning for this month.

Write for us!

But our charts aren't just an excuse to show off your games expertise and ugly faces, cos we want to get you joystick loonies writing for *Your 64*. One of you hot shots will get an all expenses paid trip to the hallowed *Your 64* offices to show us and fellow *Your 64* readers just how you reached your mega score.

Other red-hot high scorers will be invited to pit their wits in our Action Replay column and pass comment on our Megagames.

So, what'ya waiting for? Just send us your highest scores for your all-time fave games, those games you're hoping to buy and a passport-size black and white photo of yourself. And no cheating please — don't forget to get your score witnessed.

But that's not all! Three lucky hot shots will win a free game. Remember these are your charts and your vote counts — use it now!

Y64 CHART CHALLENGE

My top three all-time favourite games are:

1 ....

2 ....

3 ....

Stick your photograph here if you are going for the High Scores Chart

The next games that I'm getting hold of are:

1 ....

2 ....

3 ....

My top scores are:*

1 ....

2 ....

3 ....

*Please specify level of difficulty.

And this is who I am:

Name ....

Address ....

....

.... **Postcode** ....

Tel ....

Independent Witness:*

Name ....

Address ....

....

.... **Postcode** ....

*Must be over 18 years old

Complete the coupon (or a photocopy of same) and send it to *Y64* Chart Challenge, *Your 64*, 14 Rathbone Place, London W1P 1DE. Make sure you include a black and white photo of yourself if you're going for the high scores!

MAGAZINE HEALTH WARNING Using scissors on this page may impair the overall health of this magazine — please use a photocopy instead.

SOFT WARES

Get yourself onto a nice little earner with Your 64's exclusive software deal.

RIGHT! It's like this. You vote your favourite and most coveted games into our top ten charts. Then we get on the blower and fix up a few deals for you. Yes, John, we're offering brand-new, original games direct to you at exclusive prices. Just being a *Your 64* reader gets you in on the deal. Do yerself a favour ... fill out the coupon now and save some of those readies!

SAVE MONEY WITH Y64

Complete this coupon (or a photocopy of same) and send it off to *Y64* Soft Wares, *Your 64*, PO Box 320, London N21 2NB. Please allow 28 days for delivery.

		R.R.P.	OUR PRICE
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002	☐ Staff of Karnath (Ultimate)	£9.95	**£8.95**
011	☐ International Soccer (Commodore)	£14.99	**£12.99**
013	☐ Daley Thompson's Decathlon (Ocean)	£7.90	**£6.90**
014	☐ Beach Head (US Gold)	£9.95	**£8.95**
015	☐ Raid Over Moscow (US Gold)	£8.95	**£7.95**
016	☐ Impossible Mission (CBS/Epyx)	£8.95	**£7.95**
017	☐ Summer Games (Quicksilva/Epyx)	£9.95	**£8.95**
019	☐ Decathlon (Activision)	£9.99	**£8.99**
027	☐ International Basketball (Commodore)	£5.99	**£4.99**
028	☐ Elite (Firebird)	£14.95	**£13.95**
029	☐ Cauldron (Palace)	£7.99	**£6.99**
030 (The extra £1 will go to charity)	☐ Softaid (Quicksilva)	£4.99	**£5.99**
033	☐ The Dambusters (US Gold)	£9.95	**£8.95**
037	☐ Pitstop II (CBS/Epyx)	£10.95	**£9.95**
040	☐ Hyper Sports (Imagine)	£18.95	**£7.95**
041	☐ Summer Games II (US Gold)	£9.95	**£8.95**
042	☐ BC II Grogs Revenge (US Gold)	£9.95	**£8.95**
043	☐ Frankie Goes To Hollywood (Ocean)	£9.95	**£8.95**
044	☐ Spy Hunter (US Gold)	£9.95	**£8.95**

At these ridiculous prices, how could I resist this exclusive *Y64* offer? I've ticked the games I want to order and enclosed a cheque for £...... made out to Sportscene Specialist Press Ltd.

Please charge my Access/Visa/American Express/Mastercharge card number* ....
(*Delete as applicable)

Signature ....
(Credit card orders cannot be accepted without a signature.)

Name ....

Address ....

....

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ROCKY LXIV

Who's for a knuckle sarnie? Robin Andrews *is as he cuts a mean punch at Activision*'s Barry McGuigan's World Championship Boxing.

Our 'Enery would like this one — a noble effort at presenting the ignoble art for the small screen. And if the nearest you've ever got to the square ring is the back page of *The Sun*, then you'll be knocked out by the brainwork as well as the roadwork needed to have a crack at the 'big one'.

Being quick on the 'stick, not a cauliflower ear, will make you Cassius Clay of the Commodore. But there's bad news for McGuigan Fans — the title's misleading cos he doesn't get a look in once the game gets going.

The menus let you create your own boxer and equip him with the qualities to befit your fave paragons of pugilism. But beware, it's not just stamina and strength, but image and attitude that'll make you a prince of the ring.

This done, you can be your own Angelo Dundee and spend up to 12 weeks in a training camp. Fear not if jiggling the joystick is the most exercise you ever get — a biff on the button gives you a bash on the big bag or a week on the weights. Punch in your training programme to counter the skills of your beefy opponent (New Pro or Contender). Or be the raging bull as you blast your way through increasingly bruising bouts towards your title tilt.

With no built-in foul element, there's nothing below the belt here as you work out your strategy. Have you the stamina or skill to try for a 12 round points victory or do you take a chance by dropping your guard and going for the big K.O.?

But this game's a bit odd in parts. It lets you choose your hair colour and other cosmetic touches rather than the weight you're gonna box at! But then Ali was as hot on style outside the ring as inside it.

Your choice of boxer and opponent is also odd considering that most kings of the canvas are black or South American — or Irish! Maybe Activision are trying to revive the Great White Hope. Though billed as Barry's boxing, these blokes move more like Bruno on pheno-barbicans — definitely flat-footed heavyweights, not fleet flyweights!

And why no foot control? Oh well, we can't all float like a butterfly or sting like a bee and what's lost on fancy footwork is won on pacey and accurate punching.

I could've been a contender ... if only I could get past the 3rd round! But, at £9.95, this game's certainly in the running for the software boxing championship.

Here's your profile. All your gory details are listed below — pretty average, eh?

You may be a nice guy, but you can still pack a mean punch when you need to.

Mum, should I have red hair to match my shorts?

When is a boxer not a boxer? When he's a dancer or any of the other heavies which this game churns out.



What a record! It should be saved to impress your promoter. After all, world class boxers don't bash each other's brains out just for the sheer hell of it!

This is what your opponent's up against. It's your difficulty ranking.

The bank manager will be knocking the stuffing out of you! Don't worry — your balance will rise as you move up the rankings.

Light bag? Heavy bag? Gucci bag? Take your pick!



There's not a lot of time to get into shape. And you'll need every minute if you value your looks.

Wot! No skipping rope? Fleetness of foot is certainly no virtue in this simulation.

This training camp's no holiday camp. Work out on the weights for Barry's body bootiful!

Phew! Jane Fonda's keep-fit routine ain't a patch on this. Plump for agility or speed — either way, nobody will kick sand in your face after this lot!

Choose how much time you need for each work-out. Where's the cowardice factor?

You're Kev the Rev. No fancy footwork here — your tootsies are firmly rooted to the ground.

Your end in sight? Wear longer shorts...

No, it's not a coward's way out! But try giving the punters value for their money, else they'll head straight for this sign!

Spirit's willing but the flesh is weak? Don't flap if your endurance runs too low cos it'll build up in between rounds.



Pull back on the joystick to guard your gob.

Guard your gut — else you'll get a bellyful of knuckle sandwich!

You can't use all the ring — the boxers just scuttle around crab-wise.

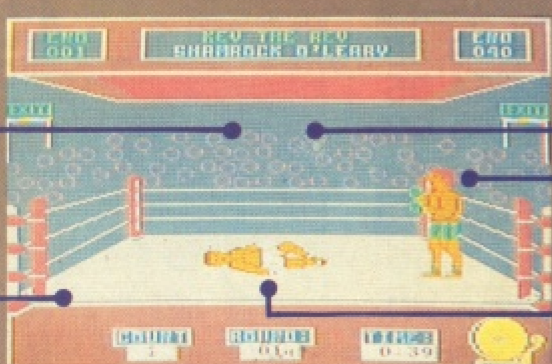
And here's your opponent. His fists cut a mean punch. Be quick on your 'stick, else you'll be knocked for six ... or three, cos that's how many wallops it takes to lose the fight.

If you're too punch drunk to remember which round it is, check here. If you win, it's your round so you'll end up drunk anyway.

You may think you've got time on your hands, but three minutes ain't long in the art of pugilism!

Ding-dong-bell! Aren't you doing well?

The crowd's totally unresponsive. Maybe they came to see Barry McGuigan?



Is your victory (or defeat!) a flash in the pan? The photo flashes record it for posterity.

Here's the champ! He's raring for another go.

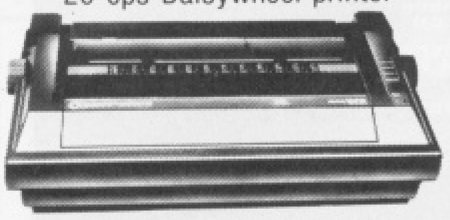
Wot! No Harry Carpenter?

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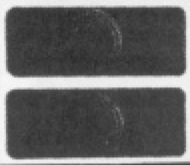
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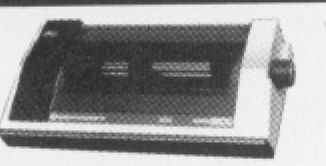
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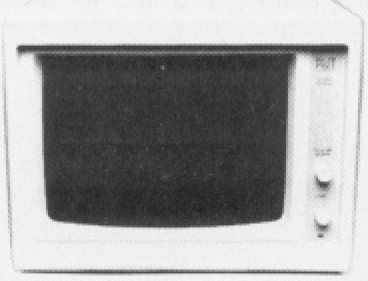
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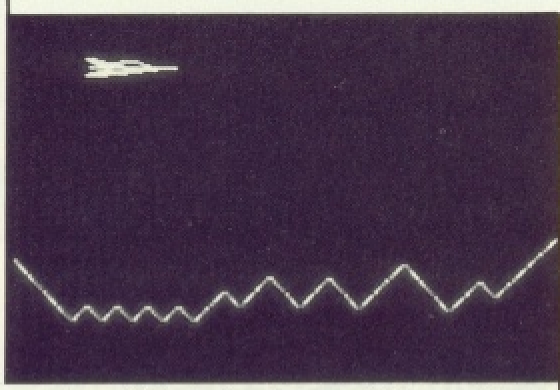
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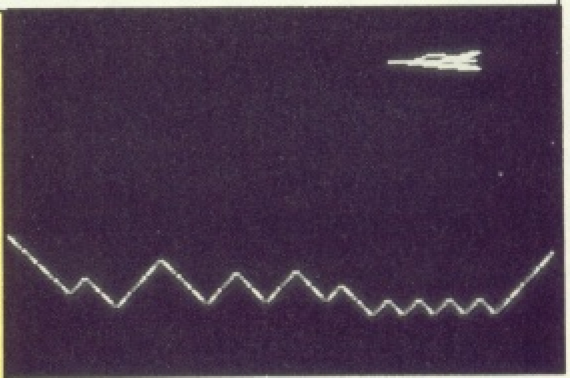
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Join the professionals! It's easy to write your own game ... if you follow this step-by-step guide from Dougie Bern. *Defender may be as old as the scrolling hills, but it's a classic example of ship shape programming!*



SELF DEFENCE



Whirling landscapes? Marauding aliens? Deadly fighter ships? Yep, it's another *Defender* game. But, this isn't yer average type-it-in-and-zap-away *Defender* clone. It's a case of *Your 64* meets Blue Peter as you learn to write your own amazing game while having fun at the same time!

I'm going to show you how to build a complete machine code game from a set of individual machine code routines. But, fret not! — I'm not asking you to slave away for hours over one long machine code listing cos each routine will work independently of the other sections of the program. Thus, you'll be able to see each part of the program working as you add to it.

Although I'm not trying to teach you machine code, I will explain how the program is built up and describe how each individual routine works. The advantage of writing the program like this is that every time you enter a new routine, you can run it and witness the results of your hard graft.

The completed program consists of seven chunks. These are as follows:

- Setting up the game, screen and sprite data/pointers
- Displaying and scrolling the landscape
- Controlling the ship
- Displaying and moving the aliens
- Firing the laser and hitting the aliens
- Scoring and levels of play
- Sound routines

This month I'll show you how to set up the first three. Each section of code is presented as a fully commented and assembled listing and also, in case you haven't got an assembler or hex loader, a Basic program with the machine code contained in DATA statements.

SAVE IT!

Right, so how d'ya get going? First off, you've got to save the machine code routines that you're going to generate. This function is performed by the Basic program, Memory Save. To use it you must first change line 80 to suit either a cassette based or disk based system. For cassette it should read

SAVE "YOUR-FILENAME",1,1

and for disk

SAVE "YOUR-FILENAME",8,1

When the other routines have POKEd the machine code or data into memory, simply run the routine and enter the memory locations you want to save. But be careful to switch your 64 off each time you save a section of code else you'll lose it when you type in the next bit. To load a file back into memory, simply type:

LOAD "YOUR-FILENAME",8,1

for disk or, for cassette

LOAD "YOUR-FILENAME",1,1

```
10 REM ***** MEMORY SAVE *****
20 PRINT CHR$(147)
30 POKE 251,PEEK(45):POKE 252,PEEK(46)
40 INPUT "ENTER START ADDRESS";S
50 POKE 44,INT(S/256):POKE 43,S-(INT(S/2
56)*256)
60 INPUT "ENTER    END ADDRESS";E
70 POKE 46,INT(E/256):POKE 43,E-(INT(E/2
56)*256)
80 SAVE "FILENAME",8,1
90 POKE 44,8:POKE43,1
100 POKE 46,PEEK(252):POKE 45,PEEK(251)
```

SPRITE DATA

OK, we'll kick off with the easy bit — data for the spaceship and alien sprites. Since this is only data, we don't need an assembly listing to enter it so simply type in the listing below and run it. This will POKE the sprite data into memory. Use the Memory Save program to save memory locations 14336 to 14528.

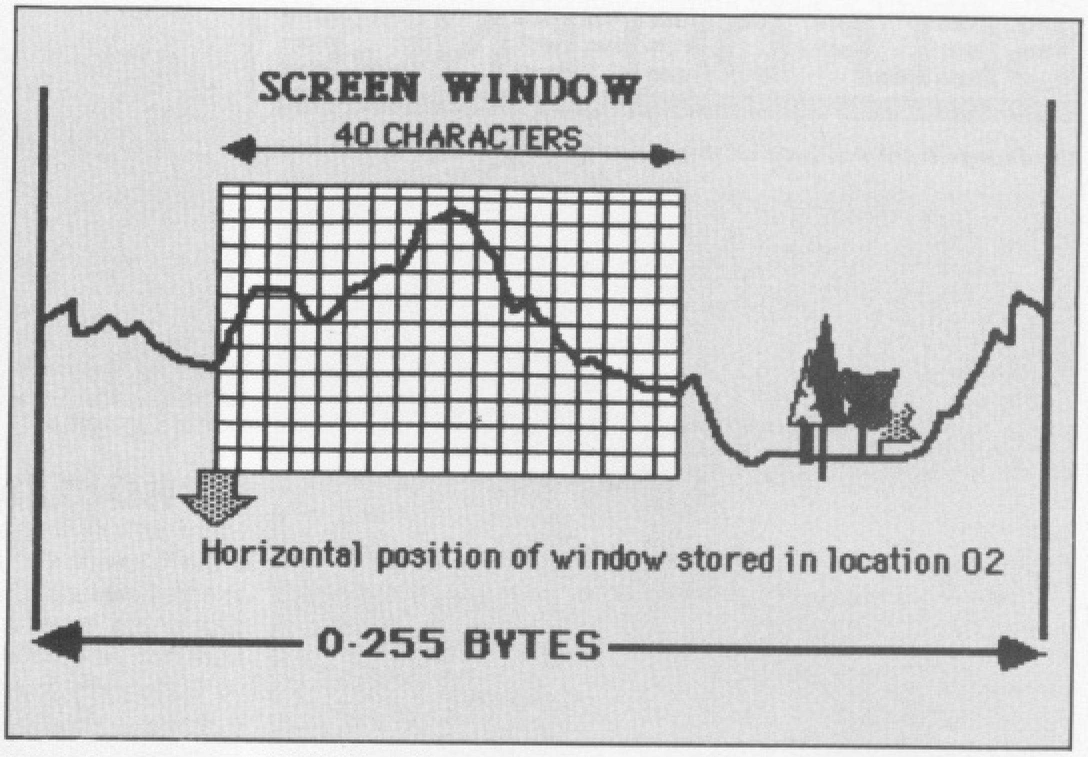
```
10 FOR X=14336 TO 14528
20 READ A:POKE X,A
30 NEXT X
40 STOP
500 DATA 0,0,0,0,0,0,0,0,0,0,0,0
510 DATA 0,0,0,224,0,0,120,124,0,63,130,0
520 DATA 31,193,128,127,255,255,6,63,224
,31,254,0
530 DATA 127,224,0,252,0,0,0,0,0,0,0,0
540 DATA 0,0,0,0,0,0,0,0,0,0,0,0
550 DATA 0,0,0,0,0,0,0,0,0,0,0,0
560 DATA 0,0,0,0,0,0,0,0,0,7,0,62
570 DATA 30,0,65,252,1,131,248,127,255,2
55,7,252
580 DATA 224,0,127,248,0,7,254,0,0,63,0,
0
590 DATA 0,0,0,0,0,0,0,0,0,0,0,0
600 DATA 0,0,0,0,0,0,0,0,0,126,0,1
610 DATA 255,128,35,255,200,39,255,104,6
2,102,56,63
620 DATA 255,56,39,51,40,47,255,40,13,15
2,96,7
630 DATA 2,192,3,255,192,6,24,96,13,24,1
76,24
640 DATA 153,24,48,90,12,48,36,12,48,24,
12,48
650 DATA 24,12,252,24,63,0,126,0,0,0,0,0
660 DATA 42,83,0,0,0,0,0,0,0,0,255,0
```

LANDSCAPE ROUTINE

Now for one of the most important features of a *Defender* program — a rapidly scrolling landscape. Before entering this section, I'll explain how it works.

In the arcade version of *Defender*, the game playing area is much larger than the screen. But, if you keep moving either to the left or right, the landscape will eventually 'wrap-round', ie — you'll be back where you started. To solve this, I've stored the landscape as a list of characters and their altitudes on the screen. This list is 256 bytes long and will wrap-round automatically.

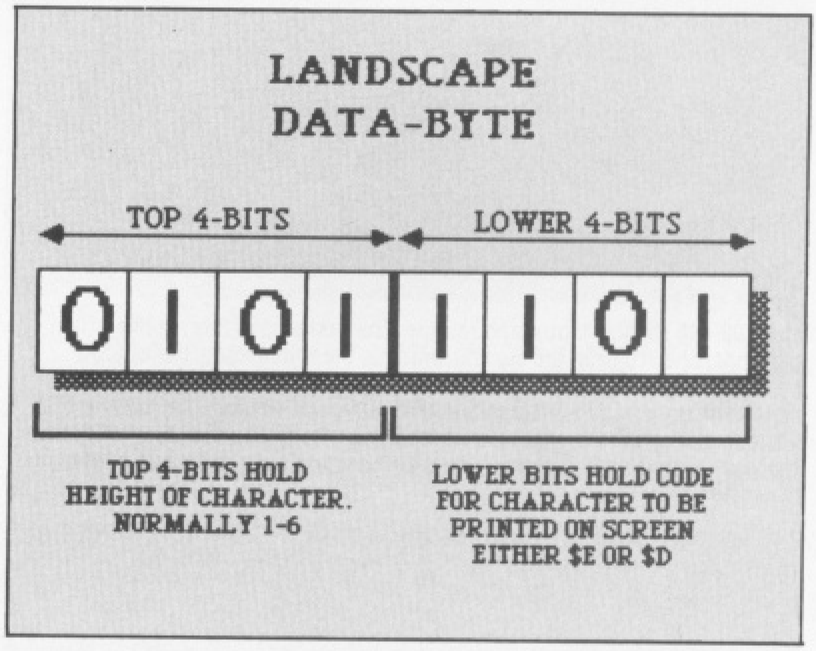
The machine code routine for displaying the landscape is in two parts. The first part prints the landscape and the other clears it. The DISPLAY routine starts at location 49200 and the CLEAR routine starts at 49286. Enter either the assembly listing or the Basic dump, assemble the data to memory, and use the Memory Save routine to save locations 49200 to 49582.



This shows how the DISPLAY routine works. When the routine's called it reads the value of the window start position and prints a 40 character section of the landscape starting from that position.

Landscape Basic Dump

```
10 REM ***** CODE FOR MOVING LANDSCAPE *
****
100 FOR X=49200 TO 49580
110 READ A:POKE X,A
120 NEXT X
130 STOP
1000 DATA 169,192,162,7,133,253,133,254,
162,0,164,2
1010 DATA 134,252,169,192,133,253,169,7,
133,254,24,165
1020 DATA 253,101,252,133,253,185,173,19
2,41,240,74,74
1030 DATA 74,74,142,1,192,170,56,165,253
,233,40,133
1040 DATA 253,165,254,233,0,133,254,202,
208,240,185,173
1050 DATA 192,41,15,24,105,64,140,2,192,
160,0,145
1060 DATA 253,172,2,192,200,174,1,192,23
2,224,40,144
1070 DATA 183,96,173,18,208,201,51,144,6
,201,251,176
1080 DATA 2,144,243,162,240,189,207,6,20
1,77,240,8
1090 DATA 201,78,240,4,202,208,242,96,16
9,32,157,207
1100 DATA 6,202,208,233,96,30,46,45,29,3
0,46,62
1110 DATA 78,77,61,45,46,62,78,94,110,10
9,93,77
1120 DATA 61,45,29,30,29,30,29,30,29,30,
29,30
1130 DATA 46,45,46,62,61,45,46,62,61,45,
46,62
1140 DATA 78,77,61,45,46,62,61,62,78,94,
110,109
1150 DATA 93,77,61,62,78,94,110,109,93,9
4,110,109
1160 DATA 93,77,61,62,78,77,61,45,46,62,
61,45
1170 DATA 29,30,46,45,29,30,46,62,78,77,
61,45
1180 DATA 46,62,78,94,110,109,93,77,61,4
5,29,30
1190 DATA 29,30,29,30,29,30,29,30,46,45,
46,62
```



Here's how the landscape data's held. Each byte in the landscape holds two pieces of information — the character height and character code.

```
1200 DATA 61,45,46,62,61,45,46,62,78,77,
61,45
1210 DATA 46,62,61,62,78,94,110,109,93,7
7,61,62
1220 DATA 78,94,110,109,93,94,110,109,93
,77,61,62
1230 DATA 78,77,61,45,46,62,61,45,29,30,
46,45
1240 DATA 29,30,46,62,78,77,61,45,46,62,
78,94
1250 DATA 110,109,93,77,61,45,29,30,29,3
0,29,30
1260 DATA 29,30,29,30,46,45,46,62,61,45,
46,62
1270 DATA 61,45,46,62,78,77,61,45,46,62,
61,62
1280 DATA 78,94,110,109,93,77,61,62,78,9
4,110,109
1290 DATA 93,94,110,109,93,77,61,62,78,7
7,61,45
1300 DATA 46,62,61,45,29,30,46,45,29,30,
46,62
1310 DATA 78,77,61,45,46,62,61,45,29
```

SELF DEFENCE

Landscape Machine Code Listing

```
  10 C000              *=$C000
  20 C000              TEMP          =  $C000
  30 C000              XTEMP         =  $C001
  40 C000              YTEMP         =  $C002
  50 C000              LAPOS         =  $02
  90 C030              *=$C030 !START OF LANDSCAPE DISPLAY ROUTINE
 100 C030 A9C0                 LDA #<1984    !BOTTOM RIGHT SCREEN
 110 C032 A207                 LDX #>1984    !HAND ADDRESS OF SCREEN
 120 C034 85FD                 STA $FD       !STORE IT IN ZERO PAGE
 130 C036 85FE                 STA $FE       !TO BE USED LATER
 140 C038 A200                 LDX #0        !INITIALISE COUNTER
 150 C03A A402                 LDY LAPOS     !GET  LANDSCAPE POS
 160 C03C 86FC     LOOP1       STX $FC       !SCREEN-X-POS (0-39)
 165 C03E A9C0                 LDA #<1984    !BOTTOM RIGHT SCREEN
 170 C040 85FD                 STA $FD
 173 C042 A907                 LDA #>1984    !OF SCREEN
 175 C044 85FE                 STA $FE
 180 C046 18                   CLC
 185 C047 A5FD                 LDA $FD       !GET THE SCREEN ADDRESS
 190 C049 65FC                 ADC $FC       !ADD CURRENT CHAR POS
 200 C04B 85FD                 STA $FD       !SAVE IT
 210 C04D B9ADC0               LDA LAND,Y    !GET DATA BYTE
 220 C050 29F0                 AND #$F0      !MASK OUT THE CHAR INFO
 230 C052 4A                   LSR A         !MOVE THE DATA ALONG TO
 240 C053 4A                   LSR A         !GET HEIGHT INFO
 250 C054 4A                   LSR A
 260 C055 4A                   LSR A
 270 C056 8E01C0               STX XTEMP     !STORE CURRENT XPOS
 280 C059 AA                   TAX           !TRANSFER HEIGHT INFO
 290 C05A 38       LOOP2       SEC
 300 C05B A5FD                 LDA $FD       !GET SCREEN CURSOR POS
 310 C05D E928                 SBC #40       !MOVE IT UP THE SCREEN
 320 C05F 85FD                 STA $FD       !PUT BACK IN MEMORY
 330 C061 A5FE                 LDA $FE       !CHECK THE HI-BYTE
 340 C063 E900                 SBC #0
 350 C065 85FE                 STA $FE
 360 C067 CA                   DEX           !DECR. LOOP COUNTER
 370 C068 D0F0                 BNE LOOP2     !BACK ROUND LOOP
 390 C06A B9ADC0               LDA LAND,Y    !GET DATA BYTE AGAIN
 400 C06D 290F                 AND #$0F      !MASK OUT HEIGHT INFO
 405 C06F 18                   CLC
 410 C070 6940                 ADC #$40      !CONVERT TO SCREEN CHAR
 420 C072 8C02C0               STY YTEMP     !SAVE DATA POSITION
 425 C075 A000                 LDY #0
 430 C077 91FD                 STA ($FD),Y   !POKE CHAR TO  SCREEN
 440 C079 AC02C0               LDY YTEMP     !GET DATA TABLE POS
 450 C07C C8                   INY
 460 C07D AE01C0               LDX XTEMP     !GET XPOS ACROSS SCREEN
 470 C080 E8                   INX           !MOVE TO NEXT POS
 480 C081 E028                 CPX #40       !TEST IF 40 POS DONE
 490 C083 90B7                 BCC LOOP1     !GO BACK ROUN LOOP
 495 C085 60                   RTS           !UNTIL WE HAVE.
```

Lines 90-495 Display landscape routine. The first part of this routine prints the landscape. To print the current window, the routine gets the window position value stored at location 2. It then gets the data byte in the LAND table corresponding to this position. From there, it decodes the byte for that position and prints the character at the correct height on the screen. This process is repeated 40 times until a whole section of landscape is printed on the screen.

```
 500 C086 AD1200 CLEAR         LDA 53266     !READ RASTER STATUS
 510 C089 C933                 CMP #51       !TEST IF RASTER SCAN IS
 520 C08B 9006                 BCC CLRX      !OFF SCREEN
 530 C08D C9FB                 CMP #251      !KEEP TESTING UNTIL
 540 C08F B002                 BCS CLRX
 550 C091 90F3                 BCC CLEAR     !IT'S OFF SCREEN
 560 C093 A2F0   CLRX          LDX #240      !BYTES TO BE CLEARED
 570 C095 BDCF06 CLR1          LDA 1743,X    !GET CHAR FROM SCREEN
 580 C098 C94D                 CMP #77       !TEST FOR LANDSCAPE
 590 C09A F008                 BEQ CLR2      !CHARACTER
 600 C09C C94E                 CMP #78
 610 C09E F004                 BEQ CLR2      !IF IT ISN'T THEN
 620 C0A0 CA                   DEX           !DECREMENT COUNTER
 630 C0A1 D0F2                 BNE CLR1      !GET NEXT SCREEN CHAR
 635 C0A3 60                   RTS
 640 C0A4 A920   CLR2          LDA #32       !LOAD 'SPACE' CHAR
 650 C0A6 9DCF06               STA 1743,X    !POKE IT TO SCREEN
 660 C0A9 CA                   DEX           !DEC COUNTER
 670 C0AA D0E9                 BNE CLR1      !LOOP  UNTIL NO MORE LE
FT
 680 C0AC 60                   RTS
```

Lines 500-680 The CLEAR routine is quite straightforward. Instead of scrolling the whole landscape every time we move left or right, this routine clears the bottom seven lines of the screen. To do this, it waits until the raster beam is off the screen (to avoid flickering) by reading the register at location 53266. It then searches the bottom seven lines of the screen, blanking out landscape characters as it finds them.

```
1000 C0AD               !DATA FOR LANDSCAPE
1500 C0AD 1E2E2D LAND          BYT $1E,$2E,$2D,$1D,$1E,$2E,$3E,$4E
1505 C0B5 4D3D2D               BYT $4D,$3D,$2D,$2E,$3E,$4E,$5E,$6E
1510 C0BD 6D5D4D               BYT $6D,$5D,$4D,$3D,$2D,$1D,$1E,$1D
1515 C0C5 1E1D1E               BYT $1E,$1D,$1E,$1D,$1E,$1D,$1E,$2E
1520 C0CD 2D2E3E               BYT $2D,$2E,$3E,$3D,$2D,$2E,$3E,$3D
1525 C0D5 2D2E3E               BYT $2D,$2E,$3E,$4E,$4D,$3D,$2D,$2E
1530 C0DD 3E3D3E               BYT $3E,$3D,$3E,$4E,$5E,$6E,$6D,$5D
1535 C0E5 4D3D3E               BYT $4D,$3D,$3E,$4E,$5E,$6E,$6D,$5D
1540 C0ED 5E6E6D               BYT $5E,$6E,$6D,$5D,$4D,$3D,$3E,$4E
1545 C0F5 4D3D2D               BYT $4D,$3D,$2D,$2E,$3E,$3D,$2D,$1D
1550 C0FD 1E2E2D               BYT $1E,$2E,$2D,$1D,$1E,$2E,$3E,$4E
1555 C105 4D3D2D               BYT $4D,$3D,$2D,$2E,$3E,$4E,$5E,$6E
1560 C10D 6D5D4D               BYT $6D,$5D,$4D,$3D,$2D,$1D,$1E,$1D
1565 C115 1E1D1E               BYT $1E,$1D,$1E,$1D,$1E,$1D,$1E,$2E
1570 C11D 2D2E3E               BYT $2D,$2E,$3E,$3D,$2D,$2E,$3E,$3D
1575 C125 2D2E3E               BYT $2D,$2E,$3E,$4E,$4D,$3D,$2D,$2E
1580 C12D 3E3D3E               BYT $3E,$3D,$3E,$4E,$5E,$6E,$6D,$5D
1585 C135 4D3D3E               BYT $4D,$3D,$3E,$4E,$5E,$6E,$6D,$5D
1590 C13D 5E6E6D               BYT $5E,$6E,$6D,$5D,$4D,$3D,$3E,$4E
1595 C145 4D3D2D               BYT $4D,$3D,$2D,$2E,$3E,$3D,$2D,$1D
1600 C14D 1E2E2D               BYT $1E,$2E,$2D,$1D,$1E,$2E,$3E,$4E
1605 C155 4D3D2D               BYT $4D,$3D,$2D,$2E,$3E,$4E,$5E,$6E
1610 C15D 6D5D4D               BYT $6D,$5D,$4D,$3D,$2D,$1D,$1E,$1D
1615 C165 1E1D1E               BYT $1E,$1D,$1E,$1D,$1E,$1D,$1E,$2E
1620 C16D 2D2E3E               BYT $2D,$2E,$3E,$3D,$2D,$2E,$3E,$3D
1625 C175 2D2E3E               BYT $2D,$2E,$3E,$4E,$4D,$3D,$2D,$2E
1630 C17D 3E3D3E               BYT $3E,$3D,$3E,$4E,$5E,$6E,$6D,$5D
1635 C185 4D3D3E               BYT $4D,$3D,$3E,$4E,$5E,$6E,$6D,$5D
1640 C18D 5E6E6D               BYT $5E,$6E,$6D,$5D,$4D,$3D,$3E,$4E
1645 C195 4D3D2D               BYT $4D,$3D,$2D,$2E,$3E,$3D,$2D,$1D
1650 C19D 1E2E2D               BYT $1E,$2E,$2D,$1D,$1E,$2E,$3E,$4E
1655 C1A5 4D3D2D               BYT $4D,$3D,$2D,$2E,$3E,$3D,$2D,$1D
```

Lines 1000-1655 Landscape data. The Display routine prints the new landscape using this LAND table and the current window position stored at location 2 in memory.

SCROLLING ROUTINE

Right, now it's time to inject a bit of action into the program. Type in the following short program and RUN it. Press the Z and X keys to scroll the landscape left and right. Don't worry if it's a bit sluggish — this is because the routine is called from Basic and not from machine code.

```
2000 PRINT CHR$(147):FOR X=56016 TO 5629
5:POKE X,1:NEXT X
2010 POKE 650,128
2050 GET A$
2060 IF A$="X" THEN 2100
2070 IF A$="Z" THEN 2150
2080 GOTO 2050
2100 IF PEEK(2)=0 THEN POKE 2,255:GOTO 2
200
2110 POKE 2,PEEK(2)-1
2120 GOTO 2200
2150 IF PEEK(2)=255 THEN POKE 2,0:GOTO 2
200
2160 POKE 2,PEEK(2)+1
2200 SYS 49286:SYS 49200
2210 GOTO 2050
```

THE MAIN CONTROL ROUTINE

Here's the meaty part of the game — the routine to scan the keyboard, move the ship, generate drift and call the landscape display routine which you've already typed in. It also includes the SETUP routine which, as its name suggests, sets up the screen colours and sprite pointers.

Once again, enter either the assembly listing or the Basic data dump, assemble the data to memory and save the machine code to locations 49664 to 49969 using the Memory Save routine. If you wish, you can make the two machine code programs into one by saving memory locations 49200 and 49970.

Main Control Machine Code Listing

```
  10 C200              *=$C200
  20 C200              DISP          =  $C030     !DISPLAY LANDSCAPE
  24 C200              CLEAR         =  $C086     !CLEAR LANDSCAPE
  25 C200              LAPOS         =  $02       !WINDOW POS POINTER
  30 C200              SHIP          =  $3800     !SPRITE DATA LOCATIONS
  35 C200              VIC           =  53248     !VIC CHIP REGISTERS
  45 C200 20C5C2                 JSR SETUP
  60 C203 EA                     NOP              !THIS ROUTINE SCREEN
  61 C204 EA                     NOP              !COLOURS, POINTERS.
  62 C205 EA                     NOP              !SCANS THE KEYBOARD,
  63 C206 EA                     NOP              !MOVES THE LANDSCAPE
  64 C207 EA                     NOP              !AND YOUR SHIP.
  65 C208 EA                     NOP              !
  66 C209 EA                     NOP              !THESE NO-OPERATION
  67 C20A EA                     NOP              !INSTRUCTIONS
  68 C20B EA                     NOP              !OTHER ROUTINES TO
  69 C20C EA                     NOP              !BE INCLUDED IN
  70 C20D EA                     NOP              !THE PROGRAM.
  71 C20E EA                     NOP              !
  72 C20F EA                     NOP              !OTHER ROUTINES
  73 C210 EA                     NOP              !INCULDE MOVING
  74 C211 EA                     NOP              !ALIENS, LASERS,
  75 C212 EA                     NOP              !SCORING & SOUND
  76 C213 EA                     NOP              !
  77 C214 EA                     NOP              !
  78 C215 EA                     NOP              !
  79 C216 EA                     NOP              !
  80 C217 EA                     NOP              !
  90 C218 2053C2 START           JSR DELAY
  95 C21B 2092C2                 JSR DRIFT
 100 C21E A5C5                   LDA 197          !SCAN KEYBOARD
 110 C220 C90D                   CMP #13          !TEST FOR 'S' KEY
 120 C222 F02E                   BEQ FINISH
 125 C224 AD00DC RIGHT           LDA $DC00        !READ JOYSTICK PORT
 130 C227 2908                   AND #8
 140 C229 D010                   BNE LEFT         !IF NOT RIGHT THEN LEFT
 150 C22B E602                   INC LAPOS        !MOVE WINDOW RIGHT
 151 C22D A9E0                   LDA #224         !SPRITE POINTER
 152 C22F 8DF807                 STA 2040         !SPRITE POINTER 1
```

```
155 C232 2086C0          JSR CLEAR    !CLEAR THE MOUNTAINS
160 C235 2030C0          JSR DISP     !PRINT THEM AGAIN
170 C238 18              CLC
180 C239 9023            BCC UP
190 C23B AD00DC LEFT     LDA $DC00    !READ JOYSTICK PORT
195 C23E 2904            AND #4
200 C240 D01C            BNE UP       !IF NOT LEFT TEST UP
201 C242 A9E1            LDA #225     !POKE NEW SPRITE
202 C244 8DF807          STA 2040     !SPRITE POINTER NO.1
210 C247 C602            DEC LAPOS    !MOVE WINDOW TO LEFT
215 C249 2086C0          JSR CLEAR    !CLEAR THE MOUNTAINS
220 C24C 2030C0          JSR DISP     !PRINT THEM AGAIN
230 C24F 18              CLC
240 C250 900C            BCC UP
250 C252 60     FINISH   RTS          !RETURN FROM SUBROUTINE
320 C253 A003   DELAY    LDY #3       !DELAY SUBROUTINE
340 C255 A2FF   DL1      LDX #255     !3 TIMES ROUND LOOP
350 C257 CA     DL2      DEX          !OF 255.
360 C258 D0FD            BNE DL2
370 C25A 88              DEY          !DECREMENT OUTER LOOP
375 C25B D0F8            BNE DL1      !LOOP UNTIL FINISHED
380 C25D 60              RTS
400 C25E AD00DC UP       LDA $DC00    !READ JOYSTICK PORT
410 C261 2901            AND #1
420 C263 D013            BNE DOWN     !IF NOT UP TEST DOWN
422 C265 A934            LDA #52
424 C267 CD01D0          CMP VIC+1
426 C26A F0AC            BEQ START
430 C26C CE01D0          DEC VIC+1    !MOVE THE SPRITE UP THE
432 C26F CE01D0          DEC VIC+1    !SCREEN 3 PIXELS
433 C272 CE01D0          DEC VIC+1
440 C275 18              CLC
450 C276 90A0            BCC START
460 C278 AD00DC DOWN     LDA $DC00    !READ JOYSTICK PORT
470 C27B 2902            AND #2
480 C27D D099            BNE START
482 C27F A9E5            LDA #229
484 C281 CD01D0          CMP VIC+1
486 C284 F092            BEQ START
490 C286 EE01D0          INC VIC+1    !MOVE SPRITE SCREEN
492 C289 EE01D0          INC VIC+1    !3 PIXELS
493 C28C EE01D0          INC VIC+1
500 C28F 4C18C2          JMP START
```

Lines 100-500 The joystick scanning routine. At each routine starting with the label LEFT, RIGHT, UP or DOWN, the computer reads the joystick port and tests to see if the joystick is set in that direction. If it is, then the rest of the routine moves the landscape (or your ship) in the corresponding direction. If not, then it re-checks to see if the joystick is set to one of the other directions.

```
650 C292 ADF807 DRIFT    LDA 2040     !MAKE MOUNTAINS DRIFT
660 C295 C9E1            CMP #225     !TEST FOR LEFT OR RIGHT
670 C297 D016            BNE DRIF2
680 C299 A9FD            LDA #253     !TEST FOR RIGHTMOST POS
690 C29B CD00D0          CMP VIC
700 C29E 900E            BCC DRIF1
710 C2A0 EE00D0          INC VIC      !MAKE MOUNTAINS DRIFT
720 C2A3 EE00D0          INC VIC
721 C2A6 2086C0          JSR CLEAR    !CLEAR MOUNTAINS
722 C2A9 2030C0          JSR DISP     !PRINT MOUNTAINS
723 C2AC C602            DEC LAPOS    !REDUCE LAND POS.
725 C2AE 60     DRIF1    RTS
730 C2AF A93F   DRIF2    LDA #63
740 C2B1 CD00D0          CMP VIC      !TEST SHIP POS
750 C2B4 B00E            BCS DRIF3
760 C2B6 CE00D0          DEC VIC      !DRIFT TO THE LEFT
770 C2B9 CE00D0          DEC VIC
773 C2BC E602            INC LAPOS    !INC LANDSCAPE POS
774 C2BE 2086C0          JSR CLEAR    !CLEAR MOUNTAINS
775 C2C1 2030C0          JSR DISP     !PRINT MOUNTAINS
780 C2C4 60     DRIF3    RTS
```

Lines 650-780 Generate drift of ship. Reversing the direction of your ship ain't that easy — it doesn't just turn round abruptly. When the ship is reversed, it slowly drifts to the other end of the screen. The DRIFT routine checks which direction your ship is facing and then its horizontal position. The ship is shifted until it reaches the correct position. It also scrolls the mountains in the right direction.

```
1000 C2C5 A900   SETUP   LDA #0       !THE GAME SETUP ROUTINE
1010 C2C7 8D20D0         STA 53280    !BORDER COLOUR BLACK
1020 C2CA 8D21D0         STA 53281    !PAPER COLOUR BLACK
1030 C2CD A000           LDY #0       !CLEAR THE SCREEN
1040 C2CF A900           LDA #<1024   !SCREEN MEMORY
1050 C2D1 85FD           STA $FD
1060 C2D3 A904           LDA #>1024
1070 C2D5 85FE           STA $FE
1080 C2D7 A900           LDA #<55296  !SCREEN COLOUR MEMORY
1090 C2D9 85FB           STA $FB
1100 C2DB A9D8           LDA #>55296
1110 C2DD 85FC           STA $FC
1120 C2DF A920           LDA #32      !'SPACE' CHARACTER
1130 C2E1 8514           STA $14      !TEMPORARY STORE
1140 C2E3 A908           LDA #8       !CHARACTER COLOUR 8
1150 C2E5 8515           STA $15      !TEMPORARY STORE
1160 C2E7 A000           LDY #0
1480 C2E9 A514   SET1    LDA $14
1485 C2EB 91FD           STA ($FD),Y  !CLEAR SCREEN MEMORY
1490 C2ED A515           LDA $15
1495 C2EF 91FB           STA ($FB),Y  !SET COLOUR MEMORY TO 8
1500 C2F1 18             CLC
1510 C2F2 E6FD           INC $FD      !NEXT SCREEN MEM. POS
1515 C2F4 E6FB           INC $FB      !NEXT COLOUR MEM.
1520 C2F6 A5FD           LDA $FD
1530 C2F8 C9E8           CMP #$E8
1540 C2FA F00B           BEQ SET2
1550 C2FC C900           CMP #0
1560 C2FE D0E9           BNE SET1
1570 C300 E6FE           INC $FE      !UPDATE HI-BYTES
1575 C302 E6FC           INC $FC
1580 C304 18             CLC
1590 C305 90E2           BCC SET1
1600 C307 A5FE   SET2    LDA $FE
1610 C309 C907           CMP #7
1620 C30B D0DC           BNE SET1
1630 C30D A963           LDA #99
1640 C30F 8D00D0         STA VIC      !SPACESHIP START X-POS
1650 C312 A964           LDA #100
1660 C314 8D01D0         STA VIC+1    !SPACESHIP START Y-POS
1670 C317 A9E0           LDA #224     !SPACESHIP DATA
1680 C319 8DF807         STA 2040     !SPRITE POINTER 0
1690 C31C A97F           LDA #127
1700 C31E 8D15D0         STA VIC+21   !TURN SPRITES 0-6 ON
1705 C321 A901           LDA #1
1710 C323 8D1DD0         STA VIC+29   !EXPAND SPRITE NO.1
1720 C326 A206           LDX #6       !SPRITES POINTERS 1-6
1730 C328 A9E2           LDA #226     !POINT TO SAME SPRITE
1740 C32A 9DF807 AL      STA 2040,X   !SPRITE POINTERS
1750 C32D CA             DEX          !DECREMENT LOOP COUNTER
1760 C32E D0FA           BNE AL       !LOOP UNTIL FINISHED
1770 C330 60             RTS
```

Lines 1000-1770 Set up sprite pointers and screen colours.

Main Control Basic Dump

```
100 FOR X=49664 TO 49969
110 READ A:POKE X,A
120 NEXT X
130 STOP
2000 DATA 32,197,194,234,234,234,234,234
,234,234,234,234
2010 DATA 234,234,234,234,234,234,234,23
4,234,234,234,234
2020 DATA 32,83,194,32,146,194,165,197,2
01,13,240,46
2030 DATA 173,0,220,41,8,208,16,230,2,16
9,224,141
2040 DATA 248,7,32,134,192,32,48,192,24,
144,35,173
2050 DATA 0,220,41,4,208,28,169,225,141,
248,7,198
2060 DATA 2,32,134,192,32,48,192,24,144,
12,96,160
2070 DATA 3,162,255,202,208,253,136,208,
248,96,173,0
2080 DATA 220,41,1,208,19,169,82,205,1,2
08,240,172
2090 DATA 206,1,208,206,1,208,206,1,208,
24,144,160
2100 DATA 173,0,220,41,2,208,153,169,229
,205,1,208
2110 DATA 240,146,238,1,208,238,1,208,23
8,1,208,76
2120 DATA 24,194,173,248,7,201,225,208,2
2,169,253,205
2130 DATA 0,208,144,14,238,0,208,238,0,2
08,32,134
2140 DATA 192,32,48,192,198,2,96,169,63,
205,0,208
2150 DATA 176,14,206,0,208,206,0,208,230
,2,32,134
2160 DATA 192,32,48,192,96,169,0,141,32,
208,141,33
2170 DATA 208,160,0,169,0,133,253,169,4,
133,254,169
2180 DATA 0,133,251,169,216,133,252,169,
32,133,20,169
2190 DATA 8,133,21,160,0,165,20,145,253,
165,21,145
2200 DATA 251,24,230,253,230,251,165,253
,201,232,240,11
2210 DATA 201,0,208,233,230,254,230,252,
24,144,226,165
2220 DATA 254,201,7,208,220,169,99,141,0
,208,169,100
2230 DATA 141,1,208,169,224,141,248,7,16
9,127,141,21
2240 DATA 208,169,1,141,29,208,162,6,169
,226,157,248
2250 DATA 7,202,208,250,96,255
```

Right, that's the hard part over and done with. Now, to get the whole lot working together, all you have to do is load in all three sections, plug your joystick into port 2, type SYS 49664 and hey presto! — you're in hyperspace.

COMPETITION

3 ~~BLIND~~ MICE

There's a mouse in our house! See how many you can find ... and win a Datex Mouse.

If you reckoned mice were only made for icon driven computers like the Apple Macintosh then paws for thought! (*Mice one! Ed*). The Datex MS-1 Optical Mouse will add a touch of that Mac magic to your 64.

Enter our fun compo and you could be the proud owner of a Datex Mouse. Cos, in conjunction with EEC Distribution, who are marketing the mouse, we're giving away three mice plus ten joysticks for runners-up.

Our prize mouse is not only fun and versatile but is much faster and easier to use than a keyboard. But it ain't much cop until it's been fed! So those kind people at Datex have provided their mouse with a graphics pack to do what mice do best — draw amazing pictures. Of course, not everybody's a budding Van Gogh! But don't worry — Datex have utility and word processing programs in the offing.

Operating the mouse is a cinch! Simply plug it into your 64 and move it in the same direction you want the arrow cursor on the screen to move. Then, by pressing one of the two buttons on the front of the mouse, select or release a function on the icon driven graphics pack.

There's a host of picture options. You can draw lines and circles, spray the screen with all sorts of designs and box and fill areas with multicoloured patterns — there's a total of 255 colour combinations! Then, to save on time and effort, at the press of a button, you can shift part of your masterpiece to another part of the picture area.

And it's extremely flexible with text and edit facilities, loads of brush styles to choose from, and the option to scrap the whole lot if you make a dog's breakfast of your first attempt! Then, if you don't want to simply save your work of art away to tape or disk, you can print it out and show it off to all your friends!

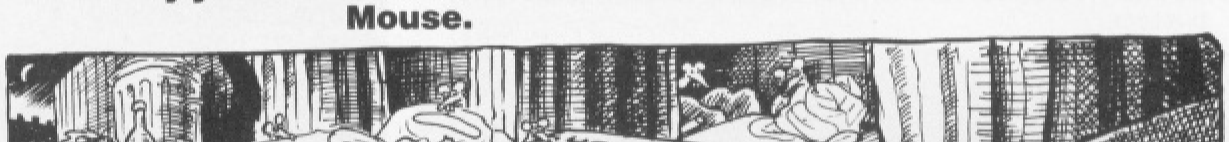
Trap A Prize

As always, we're not dishing out prizes to just anyone — but you don't have to be a megabrain to enter our compo. All you've got to do is look carefully at the piccy below.

Yipes! There's a mouse in our house ... or rather, lots of mice! And it's the moggy's job to find them. But he's a bit old and short sighted. So we're asking you lot to help him out.

When you think you've found all the mice, ring them on the illustration and complete the rest of the coupon. Then pop it in an envelope, write the number of mice you've found on the back of the envelope and send your entry to Datex Mouse Compo, *Your 64*, 14 Rathbone Place, London W1P 1DE.

The first three correct entries will get a Datex Mouse and ten runners-up will get a Micro Stick joystick. So stop mousing around ... get those entries in now!



NICK DAVIES

Rules Of The Mouse

- *Entries should reach our mouse hole no later than 31st October 1985.*
- *Each entry must include a completed coupon with the number of mice clearly written on the back of the envelope.*
- *Entries won't be accepted from employees of EEC Distribution or Sportscene Specialist Press, their printers, distributors, families and hungry cats.*
- *The Editor's decision is final and she can't be trapped with bits of cheese etc. Even pulling her tail won't make her squeak about the results.*

Datex Mouse Compo

Ring the mice on the picture and fill in the coupon. Don't forget to write the number of mice on the back of the envelope. Then send your entry (or a photocopy of it) to Datex Mouse Compo, *Your 64*, 14 Rathbone Place, London W1P 1DE.

I'm not going to be shown up by a silly old cat! I found .... mice.

Name ....

Address ....

....

.... Postcode ....

INTERNATIONAL KARATE



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DESERT ISLAND RISKS!



It's a Mad, Mad world as Phil South *pursues those infamous black and white spies through their latest bout of joke 'n' dagger exploits in Beyond's* Spy Vs Spy: The Island Caper.

Just when you thought you'd seen the last of Beyond's Madcap spies, they're back with an adventure that's even bigger and brighter than its predecessor. Last seen pitting their wits against each other in a desperate search for secret documents and ultimate escape in the aeroplane, they've now abandoned the plane over a deserted island and parachuted onto the isle, hungry for a new caper.

Like Spy 1, *Spy Vs Spy: The Island Caper*, is a faithful rendition of Mad magazine's wacky Spy Vs Spy cartoon strip. And, also like the first game, it uses a split screen technique so you can follow the exploits of both spies at once.

Isle Meet Again

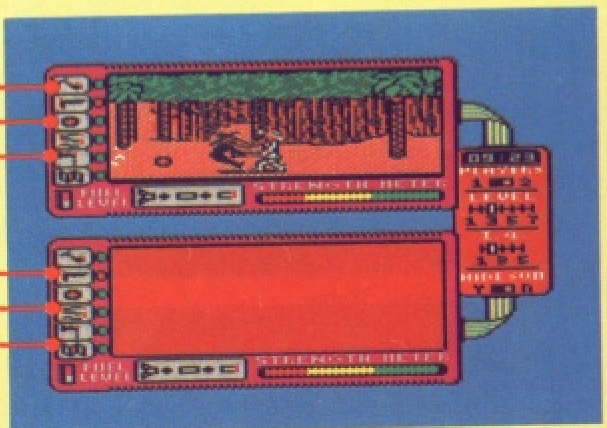
The Island may look alluring, but it's a fool's paradise. For, beneath the lush green vegetation, trouble bubbles! Hidden on the island lies a deadly missile — scattered in three parts. The spies must out-race one another to locate and assemble the missile and escape in a submarine. But, it ain't easy!

There are no holds barred as each spy tries to bring his opponent to an untimely end. As in Spy 1, you must sap your opponent's strength and slow him down by a series of devilish deeds. You can set all manner of traps using objects found on the island and stored in your trapulator or lure him to the natural hazzards which adorn the island. Don't delay — or he'll get you first!

Or, if he doesn't, the volcano will and you'll both meet a sticky end under a veil of molten lava.

If you enjoyed *Spy Vs Spy 1*, you mustn't miss out on *Spy Vs Spy: The Island Caper.* With several play options and seven levels, it's no shady deal at £9.95 on cassette and £11.95 on disk. Wonder where they'll end up next?

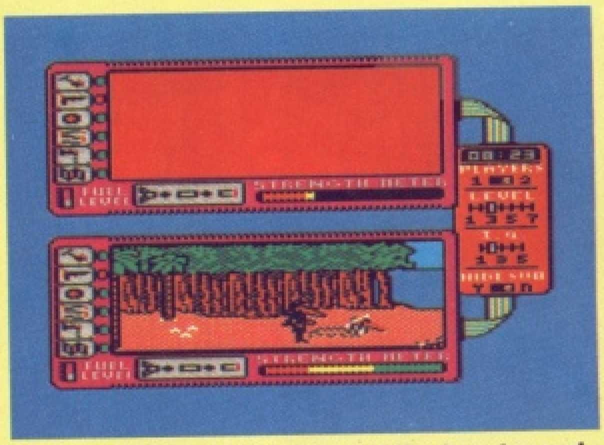
EN GARDE!



This trapulator is vital to completing your mission. Here you can store and use objects you find on the island. They can then be used to set booby traps for your luckless opponent — or yourself if you don't watch where you're going!

When you meet, it's sabres drawn and in for the kill. Bash your opponent over the head or skewer him with your sword ... and watch his strength plummet when he's hit. If he's not carrying a piece of missile, then be a wimp and run for it. If he is ... it's a fight to the death.

WATCH THE SAND, MAN!



Got that sinking feeling? Yipes! You've stepped in a pool of quicksand! It'll really sap your strength cos you'll have to go hell for leather on the joystick to get out again.

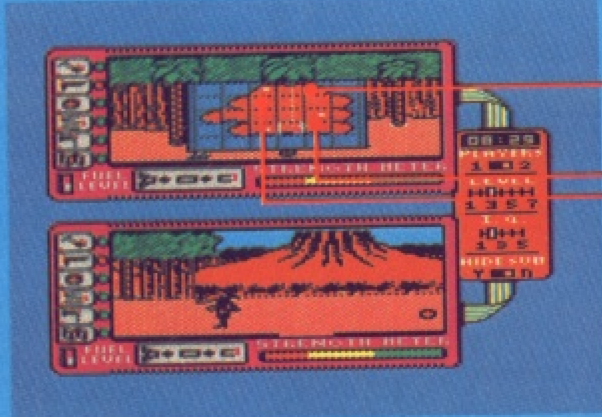
But, if you're smart, you'll use it to your advantage. Stay down there till your opponent seeks you out to nab your bit of rocket. He'll blow all his strength trying to get to you. Then scramble out of the sand, pick up the missile and find the sub.



Bring on the sub — if you can find it! Once you've assembled your missile, you can only escape from the island in a submarine. But it could be anywhere off the island — so you've gotta find it first. When you get to it, you'll automatically board it ... and sail off in search of Spy Vs Spy 3!

ALL MAPPED OUT

Oops — you're lost? Don't panic — there's a map at hand. Access the map from the trapulator — unless both spies are on screen at the same time.



Don't join up the dots — they're there to show you where you've been.

Here's where the missiles are hidden. But getting to them's the real problem.

This way through! If you want to move from one part of the island to another, you'll have to find a way through the trees.

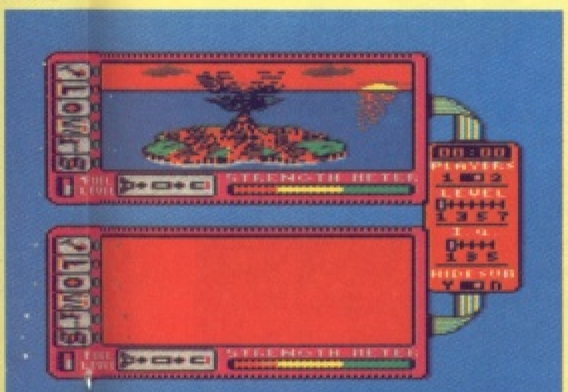
UPPO

If both spie another, th detects the equiped v blowsits te lava.



UP POMPEII!

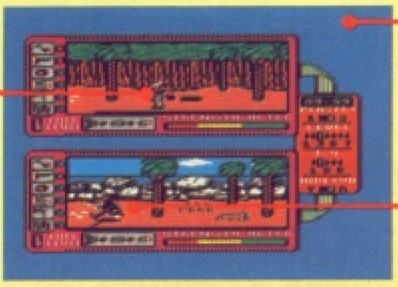
If both spies are too intent on outwitting one another, the clock will hit zero before either detects the hidden sub and flees the island equipped with the DIY missile. Then the volcano blows its top, decking the island in hot 'n' sticky lava.



WHAT A BOOB!

Fairplay's not the name of this game! To outwit your opponent, you're gonna have to cheat. But, don't worry — the island's littered with all sorts of nasty devices to aid you in your mission.

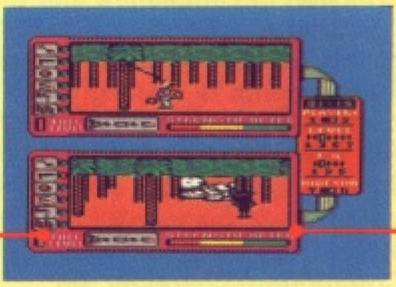
Take your pick from five types of booby traps. Dig a pit and watch your opponent shovel off! Choose from Open Pits (large black gaping holes) or perilous Punji Pits (covered pits to totally befuddle your hapless opponent). Reduce him to a pile of ashes by blowing him up with deadly napalm or a harmless-looking coconut bomb. Or, if you've got a rope, scramble up a tree and lynch him with a noose. If all else fails, get a gun and blast his brains out. But, watch your step, cos your traps could backfire!



Here's the White Spy — a clean-living and wholesome good egg. What a bore! Still, you'll have to grin and bear him, cos he's you if you're playing the computer.

Double the trouble! Just like its predecessor, *Spy Vs Spy: The Island Caper* has a split screen which lets you and your opponent play at the same time on the same screen.

If playing a mate, opt for Blackie — he's much more fun. He's a dirty, scheming rat who'd sell his grannie for a bit of a rocket.



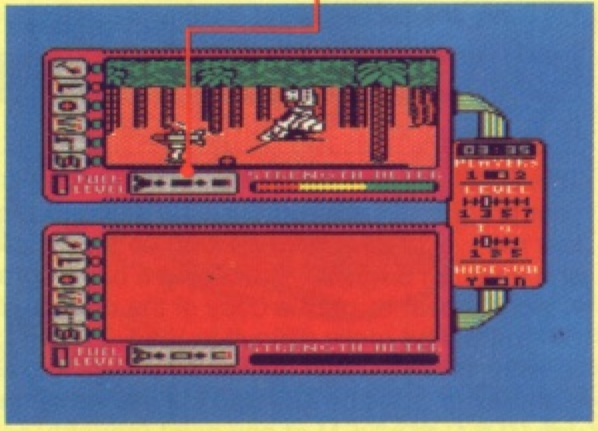
Get tanked up here! It refreshes the bombs no other fuel can reach ... But, if there's zilcho fuel, you can only make decoy coconut bombs. So, once it hits rock bottom, seek out your wrecked plane — white or black depending on which spy you're playing. Press against it for a few seconds ... Oooh! That's good — your fuelly replenished.

Here's your strength meter. Each spy starts with 100 strength units but, when his strength hits zero, he's a gonna! So don't lash about like a bat out of hell — conserve your energy. If a spy dies on land, a tombstone appears in his place. If at sea, air bubbles will mark his ignoble death!



HIT SEEKING MISSILE

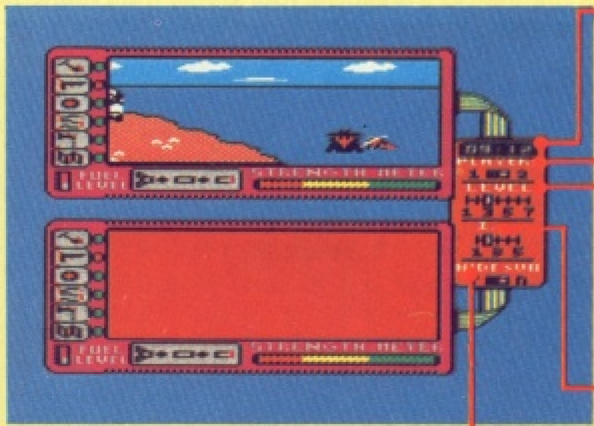
Here's how many missile parts you've assembled. Whenever you pick up a piece of missile, the equivalent bit will flash on the diagram.



A top secret XJ41/2 missile has crashed onto the island. You can't flee the island until you've assembled the three parts of the missile cos the spy master on the sub will only let you on board if you're carrying an assembled missile.

But, while locating and building the missile, you can only carry one part at a time. To pick up each bit, position your spy over it, hold the joystick down and pull it towards you. The missile part you're carrying will drop to the ground and automatically link with the next bit. This done, pick the two assembled parts up and seek out the last bit.

WATER, WATER EVERYWHERE . . .



Swim for it — else your strength will plummet!

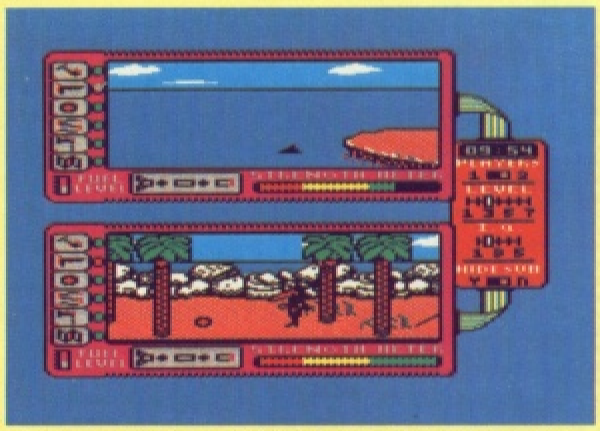
Out for the count! Well, you will be if the clock hits zero ...

You can either play an opponent or a one player game against the computer.

As you rise from one level to another, the number and types of objects lurking on the island change. The island also grows — in fact there are two islands on level 5 and 6 so you'll have to swim for it!

Mensa here we come! In one player mode, you can choose the computer's IQ — the higher it is, the harder the game.

Here's the masochist factor! If you really want to run around in circles, then hide the sub till the end.



Help, shark! Nope, it's not Jaws but an equally hostile green gilled mud-shark which lurks in the waters around the island. Don't hang about, especially if you're carrying the rocket. If a shark eats it, you can't finish the game.

Scratchpad

From the useful to the downright silly . . . more of your programming shorts and snippets!

Lots of machine code this month — the useful programs come from D. Talbot of Darwen in Lancashire and the inimitable William Fong of Charlton, London. Mr. Talbot's Cruncher program compacts Basic programs by removing excess spaces and REM statements — making your programs smaller and faster. William's routine produces a disk directory without you having to first save the program you're working on. This month's trivia spot comes from two really modest programmers in Burton-on-Trent — Martyn Lee and Nick Taylor. Their magnum opus produces a fancy version of the Commodore character set. Finally we've a short routine from Christopher Farrell called Super Saver. It lets you save a block of memory to tape. We're open to anything from a set of useful POKEs to short utilities and we'll pay for anything that we print. The address is, as always, Scratchpad, Your 64, 14 Rathbone Place, London W1P 1DE. Please include a tape if you can but don't worry if you can't get a printed listing. We have the technology!

HERE'S THE CRUNCH

D. Talbot

This utility will remove unnecessary spaces and REMs from your program — making them smaller and faster. To use it, first run the loader and then load up the program to crunch and enter SYS 49152. Crunching a big program can take a while. It's best to keep a copy of the original as the crunched version will be really difficult to read. The program will not remove spaces within quotes so strings and PRINT statements won't be affected but it does remove all REMs. If you GOTO to a REM at any point (naughty naughty), you'll need to fix the GOTO after you've crunched the program.

```
10 REM CRUNCHER: D TALBOT
15 T=0
20 FOR I=49152 TO 49369:READ A:POKE I,A:
T=T+A:NEXT I
25 IF T<>32766 THEN PRINT"ERROR IN DATA
STATEMENTS":END
30 DATA 165,43,133,193,165,44,133,194,16
0,0,152,24,101,193,133,193,144,2
40 DATA 230,194,160,0,177,193,208,28,200
,177,193,208,23,32,51,165,169,67
50 DATA 141,119,2,169,108,141,120,2,169,
13,141,121,2,169,3,133,198,96,32,51
60 DATA 165,169,0,133,251,160,4,177,193,
201,143,208,42,160,0,177,193,133
70 DATA 172,200,177,193,133,173,160,0,17
7,172,133,174,200,177,172,133,175
80 DATA 160,0,32,165,192,177,193,197,174
,208,245,200,177,193,197,175
90 DATA 208,238,240,165,200,177,193,208,
3,200,208,147,201,34,208
100 DATA 6,165,251,73,255,133,251,166,25
1,208,234,201,32,208,6,32,165
110 DATA 192,24,144,225,201,143,208,220,
136,152,170,177,193,240,7,169
120 DATA 32,145,193,200,208,245,138,168,
208,203,198,45,165,45,201,255
130 DATA 208,2,198,46,165,194,133,253,15
2,170,24,101,193,133,252,144
140 DATA 2,230,253,160,1,177,252,136,145
,252,230,252,208,2,230,253,165
150 DATA 252,197,45,208,237,165,253,197,
46,208,231,138,168,96
```

QUICK DIRECTORY

William Fong

This machine code program displays a disk directory on the screen without you having to save the program you are working on, LOAD "$",8 and LIST. After running it, SYS 49152 will produce a directory at any time — what a shame Commodore didn't build the facility into the 64 from the start! The loader puts the routine at location 49152 onwards but you can alter line 20 to load the routine at any address that's convenient.

```
10 REM DISK DIRECTORY: WILLIAM FONG
20 T=0:I=49152
30 READ A:IF A=-1 THEN 50
40 POKE I,A:I=I+1:GOTO 30
50 IF T<>0 THEN PRINT"ERROR IN DATA STAT
EMENTS":END
60 PRINT"DISK DIRECTORY INSTALLED"
70 PRINT"ENTER SYS 49152 FOR DIRECTORY"
80 END
100 DATA 169,48,133,252,169,2,133,253
110 DATA 169,1,133,253,169,0,133,144
120 DATA 169,36,133,251,169,251,133,187
130 DATA 169,0,133,188,165,253,133,183
140 DATA 169,8,133,186,169,96,133,185
150 DATA 32,213,243,165,186,32,180,255
160 DATA 165,185,32,150,255,164,144,208
170 DATA 61,160,6,132,251,32,165,255
180 DATA 166,252,133,252,164,144,208,46
190 DATA 164,251,136,208,238,164,252,32
200 DATA 205,189,169,32,32,210,255,32
210 DATA 165,255,166,144,208,24,170,240
220 DATA 6,32,210,255,76,87,128,169
230 DATA 13,32,210,255,165,197,201,63
240 DATA 240,4,160,4,208,197,32,66
250 DATA 246,96,-1
```

BRILL CHARACTERS

Martyn Lee and Nick Taylor

Run this little number to transform your 64 — well, make its character set a little more modern.

```
0 PRINT"♥"
1 PRINTSPC(9)"SPACE AGE LETTERS"
2 PRINTSPC(17)"BY"
3 PRINT"  A BRILL 64 PROGRAMMER WHO'S TH
E BEST"
4 PRINTSPC(14)"MARTYN LEE"
5 PRINTSPC(8)"DATA BY NICK TAYLOR"
20 POKE52,48
30 POKE56334,PEEK(56334)AND254
40 POKE1,PEEK(1)AND251
50 FORN=1TO511:POKEN+12288,PEEK(N+53248)
:NEXTN
60 POKE1,PEEK(1)OR4
70 POKE56334,PEEK(56334)OR1
```

```
80 POKE53272,(PEEK(53272)AND240)+12
90 FORLE=12296TO12504:READDA:POKELE,DA:N
EXTLE
95 FORNU=12672TO12752:READDA:POKENU,DA:N
EXTNU
100 DATA0,126,98,98,126,98,98,0
110 DATA0,124,100,100,126,98,126,0
120 DATA0,126,96,96,96,96,126,0
130 DATA0,126,50,50,50,50,126,0
140 DATA0,126,96,124,124,96,126,0
150 DATA0,126,96,124,124,96,96,0
160 DATA0,126,98,96,110,98,126,0
170 DATA0,98,98,126,126,98,98,0
180 DATA0,126,24,24,24,24,126,0
190 DATA0,63,4,4,100,100,124,0
200 DATA0,108,108,124,102,102,102,0
210 DATA0,96,96,96,96,126,126,0
220 DATA0,126,106,106,106,98,98,0
230 DATA0,122,106,106,106,106,110,0
240 DATA0,126,98,98,114,114,126,0
250 DATA0,126,98,98,126,96,96,0
260 DATA0,126,98,98,106,102,126,0
270 DATA0,124,100,124,102,102,102,0
280 DATA0,126,96,126,2,2,126,0
290 DATA0,126,24,24,24,24,24,0
310 DATA0,98,98,98,98,98,126,0
320 DATA0,98,98,98,98,60,28,0
330 DATA0,66,66,90,90,90,126,0
340 DATA0,102,60,24,60,102,66,0
350 DATA0,98,98,98,126,24,24,0
360 DATA0,126,2,14,56,96,126,0
370 DATA0,126,70,78,114,98,126,0
380 DATA0,16,16,24,24,24,24,0
390 DATA0,126,70,6,126,64,126,0
400 DATA0,124,68,6,30,6,126,0
410 DATA0,64,64,96,104,126,8,0
420 DATA0,126,64,126,6,70,126,0
430 DATA0,126,96,126,102,102,126,0
440 DATA0,126,66,6,6,6,6,0
450 DATA0,60,36,36,126,98,126,0
460 DATA0,124,68,126,6,6,126,0
470 DATA0,0
```

C'mon guys — it takes two of you to write it and it doesn't even redefine all the graphics characters! Seriously, anyone else designed any super new fonts — how about an Olde Englishe or Handwriting characters?

SUPER SAVER

Christopher Farrell

This short routine lets you save any block of memory to tape without having to POKE a machine code program into memory or use a monitor. Set S and E to the start and end address of the block to save and run the program. You'll get the usual 'Press Record and Play' message. The block is saved without a name and can be loaded back in with LOAD "",1,1.

The program works by calling on routines in the 64's Kernal ROM. SYS 65466 is the SETLFS routine that sets up logical, first and secondary addresses for filing. SYS 65469 is SETNAM which sets the filename and SYS 65496 is SAVE which actually saves the block of memory.

```
20 S=1024:E=2047:GOSUB 1000:END
1000 REM SAVE MEMORY FROM S TO E
1010 POKE 780,1:POKE 781,1:POKE 782,255:
SYS 65466
1020 POKE 780,0:SYS 65469
1030 POKE 252,INT(S/256):POKE 251,S-256*
PEEK(252)
1040 POKE 782,INT(E/256):POKE 781,E-256*
PEEK(782)
1050 POKE 780,251:SYS 65496:RETURN
```

Anyone going to convert this one to save to disk?

MIND YOUR LANGUAGE

Looking to move on from Basic? David Janda *rounds up all the popular programming languages available for the 64...*

Have you ever wanted to try out another programming language for the 64, but found it hard to get details of who does what and for how much? Well worry no more! The *Your 64* language summary table will give you the names, contacts and details of all the language packages on the market.

The 64 is not badly off for alternative languages. The most obvious reason for this is that it's got piles of memory knocking about and the built-in bank-switching system allows you to arrange the memory to suit your needs.

The other is simply that its built-in Basic is a bit long in the tooth. It meanders along at a gentle pace and ignores such frippery as graphics and sound. Nor does it treat us programmers with the respect we deserve — there are almost no commands to help with debugging and development.

One solution is to extend the Basic with new commands. Packages like *Simon's Basic*, *Breden's Basic* and our own *Y64 MegaBasic* cure a lot of the problems. But they're a bit cumbersome — many actually slow the 64 down as it spends time checking for the extra commands. The big problem is that programs written using an extended Basic only work on machines that also have that particular extended Basic.

So, why not just chuck the whole lot away and go for a whole new language? You get speed, full facilities and, in the case of compilers, you can produce programs that will run on any 64.

What To Expect

Most of the alternative languages for the 64 are compilers. The word conjures up visions of huge programs with machine code like speed. Sorry — not on a micro like the 64! Most software houses skimp by calling on routines in the 64's ROM. This keeps the size of the compiler down but it also makes finished programs quite slow because they're using routines in ROM designed for an interpreter.

In the case of Pascal, most compilers use the P-code system. This converts your program into an imaginary machine code which is then executed by an interpreter whenever you run the program. If you think this sounds a silly idea and a good recipe for slow programs, then join the club! The argument is that P-code is supposedly portable across different machines and that your programs can then run on several makes of computer. I've yet to see anyone who has actually got this together.

So in many cases you won't get the speed you're expecting; you should check this — any language that isn't five times faster than Basic is not worth the bother.

Forth scores well here. Although it's a combination of compiler and interpreter, it's designed to run quickly. The only hitch is that it's a bit fiddly — it's not a lot easier than writing your programs in machine code.

So, if you'd always thought Basic alternatives were only for the mega brain brigade, it's time you thought again. With a language pack, you won't only enhance the power of your 64 but you'll have a lot of fun as well. Go on, don't be a Basic bore!

TABLE TALK

Name: The name of the package.
Producer: The software house that produces the package.
Media: The media the language is supplied on; T=tape, D=disk and C=cartridge.
Cost: The producers recommended retail price, includes VAT.
Standard: This column indicates whether the package meets the standard requirements for the language. As with all categories except Type, Y=yes, N=no.
Extension: Indicates whether the version incorporates any extensions to the language (besides colour, sound etc)
Colour, sound and **sprites:** Does the language include extensions to handle colour, sound or sprites?
Graphic: Indicates graphic commands such as draw, circle and so on.
Type: C=compiler, I=interpreter or, in the case of Forth B=both.
Object: This (very important) column indicates whether it is possible to produce object code that will run without the compiler in memory.
Comment: Points of interest.

Contact List
Adamsoft (0706) 524304
Audiogenic Ltd (0734) 664646
Commodore (0536) 205252
First Publishing (0735) 75244
Microdealer (0726) 3456
Oasis Software (0934) 419921
Orpheus (0767) 51481
Oxford Comp Soft. (0993) 812700
Sigma Technical Press (0625) 531035
Handic Software (0344) 778800
Melbourne House 01-940 6064

THE ULTIMATE LANGUAGE TABLE

Name	Producer	Media	Cost	Standard	Extension	Colour	Sound	Sprites	Graphics	Type	Object	Comment
Ada	First Publishing	D	£49.99	N	N	Y	N	N	N	C	Y	Ada tutorial.
Comal 80	Commodore	C	£49.95	Y	Y	Y	Y	Y	Y	I	N	What the 64 has always needed!
Fig-Forth	Romik Software	T	£14.95	Y	N	N	N	N	N	B	N	No frills.
Forth+	Melbourne House	T	£14.95	Y	Y	Y	Y	Y	Y	B	Y	Includes 6502 RPN assembler.
Forth 64	Audiogenic	C	£29.95	N	Y	N	N	N	N	B	N	Quite fast, not many features though.
Forth 64	Handic Software	T	£34.95	Y	Y	Y	Y	Y	N	B	N	Nice features, but pricey.
Forth 64	Microdealer	C	£54.95	Y	Y	Y	Y	Y	N	B	N	Very good editor.
Tiny-Forth	Adamsoft	T	£12.95	N	N	N	N	N	N	B	N	Can't see the point!
White Lightning	Oasis Software	D T	£14.95 £19.95	Y	Y	Y	Y	Y	Y	B	Y	Quite simply the best around.
Logo	Commodore	D	£34.95	Y	Y	Y	Y	Y	Y	C	N	Good version.
Oxford Pascal	OCS	D	£57.44	Y	Y	Y	Y	Y	Y	C	Y	Good but expensive.
Pascal 64	First Publishing	D	£34.99	Y	Y	Y	Y	Y	Y	C	Y	Handles interrupts.
Pascal 64	Orpheus	T	£24.95	Y	Y	Y	Y	Y	Y	C	N	Fast graphics.
Pilot	Commodore	D	£24.95	Y	N	Y	Y	Y	Y	I	N	Excellent version.
Pilot-Plus/64	Sigma Tech.	T	£26.00	Y	N	Y	N	N	Y	I	N	Not many features.

The purpose of this table is to give you an idea of the basic capabilities of each language package, together with the price and producer. To find out more, simply look at the entry under producer and match it up with the phone number in the contacts list. Here's a guide to the headings used in the table.

KNOW YOUR LANGUAGE



Meijnheer Comal's a pretty basic type of guy and very popular in his native Holland. In fact, in the eyes of Dutch school kids, he's quite a cult figure. He may be easy to get along with, but he's a bit of a bore — a stickler for routine, leading a highly organised and structured lifestyle.



Mr. Pascal is your typical academic, albeit with a hankering to the commercial life. He's quite a megabrain but, since he tends to be a bit long winded, may induce comatose in those students who like to get to the point as quick as poss.



Master Logo's a bright and lively kid with great potential. He may be precocious, intent on improving his mind at such a tender age — but he's got problems! Because he's so young, his mates often just want to play with him.



Master Forth is a very popular lad — a bit scruffy but very bright and quick witted. He's a fast talker and muddles his words up so it's sometimes hard to suss out what he's saying! He hopes to use his qualifications for a career in industry.



Mr. Pilot has devoted his life to education. He's a kindly soul, helping his fellow teachers to do their jobs more efficiently and easily. He's a stickler for class participation — no nodding off in his lessons cos he expects sharp responses to all his questions.



Don't meddle with General Ada, unless you know what you're doing. He's power mad, applying his muscle to such unsavoury tasks as controlling nuclear weapons. But poor old sarge has been through so much in his life that he sometimes gets a might confused!

HUNT EMERSON

Viva España

If you fancy a holiday which combines sunstroke, hostile locals, warm beer, fish 'n' chips and much more, then Melbourne House's Terrormolinos sounds like your kind of place. But you'll have to take ten photos to prove you survived it!

32 Betjeman Close,
Slough,
Berks.

30th August 1985

Dear Kwikhol Tours,

I demand a refund. I have just returned from the most harrowing experience of my life - a two-week holiday in Terrormolinos, the cesspit of the Costa Brava.

What sort of lying, thieving, cheapskate joint are you operating? Your brochure is a pack of lies. 'Miles of golden sand' and 'azure sea' were promised, but why weren't we warned about the ravenous sharks who tried to devour me and my daughter? And what about the treacherous wildlife? My wife was scared witless by venomous spiders and I had to save my son from being gored by a manic bull. Of course, the laconic locals just stood by and gawped. OK, I expected the inevitable sunburn and evil tasting foreign food - but not the hazards this perilous dump has to offer.

In fact, our troubles started long before we ever got to Spain. You just don't realise the traumas involved in getting a wife and two kids ready for such a long spell away from home. By the time we'd packed all our gear and dashed to the airport, the damn plane had left without us and we had to wait ages for the next flight.

Well, I've learned my lesson. Next year we'll book our hols through a reputable firm rather than a tacky bucket-shop like yours. People like you deserve a life sentence on Terrormolinos.

I look forward to receiving my money - it should pay for next year's trip to Wigan.

Yours sincerely,

P.S. Enclosed snapshots are mementos of our Mediterranean nightmare.



Terrormolinos is littered with nightclubs. This one was a bit tamer than most!!!



We leapt at the chance of a trip to the local vineyard - mucho plonko and all for free! But the wife really freaked when she saw this Latin charmer! (Not quite the red blooded animal she'd expected!)



Here's me with the kids at the bullfight. Ken, the little brat, reckoned he was a match for the matador and jumped into the ring to confront the raging bull!!! Of course I had to come to the rescue and narrowly missed being gorged by the bovine brute!



Corr!!! Eyeing-up the local talent sure beats sight-seeing around this wretched resort!



Doreen may look the picture of innocence here but within minutes of dumping our luggage she wandered off to the beach. After scouring the scummy sands for the little dear I found her stranded on an island and almost got mauled by a shark trying to rescue her!

ART ATTACK

Peter Casso picked a pack of picture packs to paint his pretty pixel pictures.

Gorged yourself on games, perplexed by programming and just can't get hooked on the heavy stuff? Well, if you fancy doing something a little different with your 64, how about dabbling in a bit of art.

OK, so you haven't even passed the drawing straight lines stage and anyway why should anyone want to draw naff pretty pictures? Cos it's fun! And the 64 takes out all the hard graft by filling in the long boring bits at the press of a button or twiddle of a joystick.

But, with so many 64 art packs knocking around, which one do you opt for? We've

Tony Hart's Art Master

Commodore/£9.99
Cassette/Disk

This multicolour mode package includes a selection of all the best features. The magnify/enlarge box is a bit small but is handy if used with the cursor keys to 'fine tune' each individual dot of colour. Multicolour mode is the ideal canvas on which to produce very detailed pictures — so persist and your new-found talent will have you bristling with pride.

Some of the functions, like circle, have a Mickey Mouse feel to them. Also, changing colours in the multicolour palette is tricky and error prone. And there's no erase feature so the only way to get rid of something is to mop over it using the current background colour — imagine redrawing a circle this way!

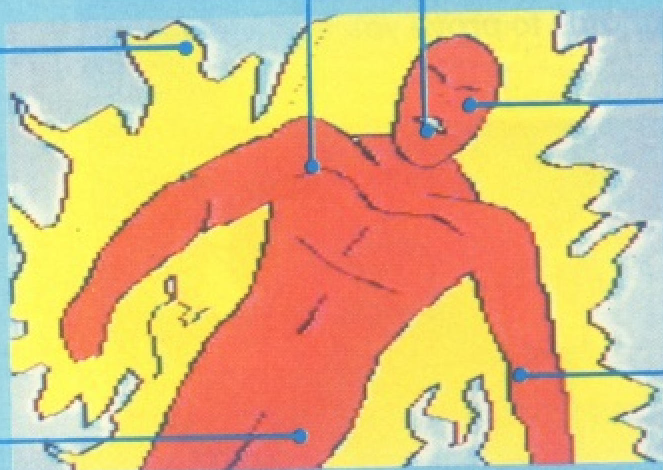
It's hard work trying to get to grips with this one. But persist — a good multicolour art pack is hard to find.

Ease of Use	**5/10**
Facilities	**5/10**
Picture Quality	**7/10**
Picture Completion Time	**1 hour**

As you can see from this garish creature, *Art Master*'s quite hot on colour — many tints can be grouped together. But it's tough getting the Basic pixels on the screen so colour handling's tortuous to use. Shading's possible — but I didn't fancy fiddling around with my friend here all weekend!

Hey! What a straight line — and not a ruler in sight. *Art Master*'s Line function lets you do this at the press of a button, but it ain't as nice as a band line facility.

Wow, what fantastic flames! But it's a pain to draw these squiggles with the cursor keys cos the cursor plods along in tortoise mode. If it's speed you need, use the joystick.



What a cutesie conk! *Art Master* provides a natty magnifying glass to add fine detail to your pics.

But all this red's a bit heavy going. If you're not happy with the standard colours, *Doodle* will let you swop them for up to three others. Trouble is, this only applies to one patch of your pic. So, if you want a total change, you'll have to clear the screen.

OK, so Firebrand's a bit dodgy in parts. That's cos you need to look at the detail box to suss out what the hell's going on! You can shift it around the screen but it tends to mar the total effect, so it's best to remove it altogether. Phew! It's tough being an artistic genius!

Paintbox

Audiogenic/£9.95
Cassette

The box, circle and line functions are quite advanced. All use a rubber band feature — a little trail following the cursor which helps you suss out where your line's going to be. The duckshoot menu is also quite revolutionary. And the cursor's very snazzy — it changes shape and size to produce an array of special effects. For example, a diagonal cursor will give thick brush strokes.

As a multicolour package, this should offer a lot of scope for fancy pics. But it doesn't. Since there aren't any erase or magnify options, detailed doodling is out of the question. Also, the duckshoot is fiddly and clumsy, and the whole thing runs at a snail's pace. The Help screen isn't much help either.

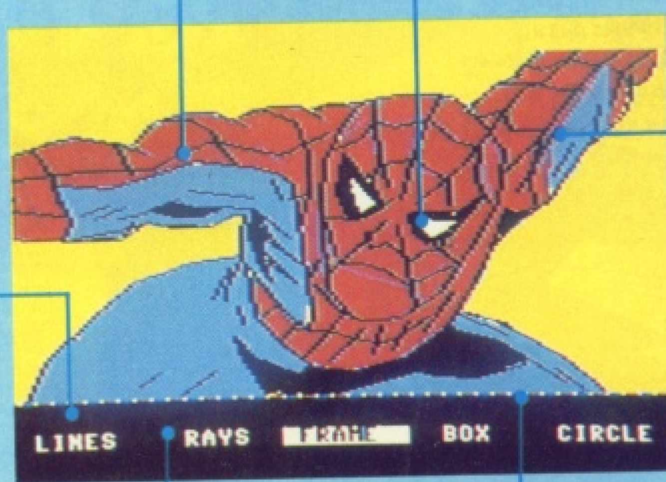
This, as the newest of the packs, has a lot of mod cons. But it pales beside earlier works, like Doodle. It's unfriendly and a tough nut to crack.

Ease of Use	**6/10**
Facilities	**7/10**
Picture Quality	**7/10**
Picture Completion Time	**1½ hours.**

Don't be fooled by this comatosed creature. If you get him moving, he's really scary! Build up an animated Spiderman by switching screens — just like changing channels on the TV — and saving your two pics separately.

The Paintbox cursor's a cut above the rest. It'll change shape and size to produce an array of special effects. For example, a single dot lets you draw a ball-point pen line while a diagonal cursor will give thick brush strokes.

Line drawing's a cinch. Just select the Line option from the duckshoot menu and off you go, again using our old friend, the rubber band. What's more, *Paintbox* lets you position the line after it's been drawn. Cute.



Select the Painting function and hey presto! — a whole area is automatically filled with colour. This gets a bit dodgy if you're not careful with your multicolour modes — sussing out the palettes is vital to doodling the Paintbox way.

Here's the duckshoot. It looks fast, moves fast, but selecting menu items has all the speed and grace of a lead weighted Sumo Wrestler. But if you give your joystick a bit of welly, you can whizz along the menu at full throttle. But, beware! Stopping at the right spot just ain't as easy as it looks.

Band aid! Use the rubber band facility to reproduce a boxed section of your pic anywhere on the screen. But, be warned! If you draw over an old part of the pic, it'll show through your latest doodle. Very confusing!

picked out just four — one piece of art nouveau, Audiogenic's *Paint Box*, and three old masters.

All but *Mr Pixel's Painting Set* will let you create pics for use in your own programs, but we've assessed them just on how well they knock up static works of art.

Arty Facts

The 64's a natural canvas. First off, it has two hi-res modes — normal and multicolour. Whereas multicolour mode lets you mix several colours in one character square, normal mode only allows two colours per square. *Doodle* is an excellent example of how this can be exploited with the right art package.

What's more, the 64's colour palette, with its selection of 16 colours, is one of the meatiest on any home computer.

There are certain features which any self-respecting pixel painter should look for in his chosen tool to fame ... and fortune (software houses are eager to snap up masterpieces for title screens on games). Points are scored for enlargement, a variable speed cursor, box and copy functions. Other musts are a line drawing facility so your lines don't go skew-whiff and circle or elipse drawing to take the wear and tear out of creating curves.

Top Draw

So, the million pixel question, how do our four pic packs measure up? Well, *Doodle* came out tops — not only does it create the best pics, but it's easy and fun to use. *Mr. Pixel* fails miserably — but then it makes no claims to be a masterpiece. And *Paint Box* was the most convincing fake — it boasts ease of use, but got my joystick in a jitter. Anyway, to illustrate these points let's take a peek at how I've put my artistic talent to the test. 64

Doodle

Quicksilva/£14.95
Disk

This pack contains all the facilities you could want — and a few you never dreamed of. Fast copy mode (with the ability to copy a snippet of the pic to another part of the screen and boost its size), precise circle, box and line modes, a flexible letter mode (featuring a range of enlarged sizes) and the best magnify mode available all add up to a top notch package. What's more, this one's cluttered with Help screens so there's no need to use the manual.

No multicolour mode here — just standard hi-res. If you are going to add the pics to your own programs, beware! — they eat up memory. Otherwise, it's near perfect.

I can't recommend this one highly enough — it's the one I use for it's speed, ease of use and excellent facilities.

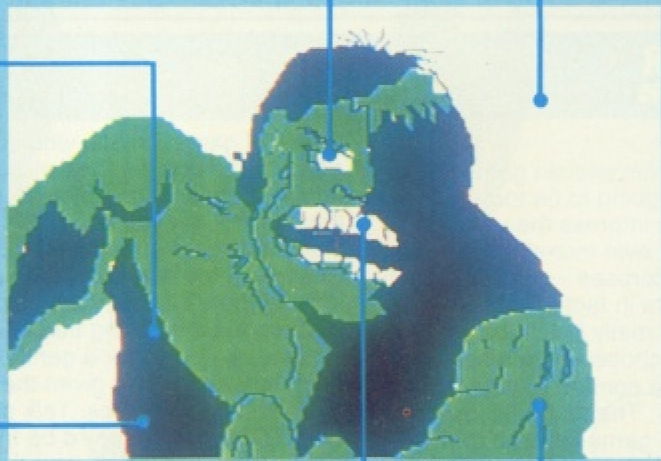
Ease of Use	7/10
Facilities	8/10
Picture Quality	9/10
Picture Completion Time	30 mins

Before colouring in the torso and head, the detail in the piccy was drawn in magnify mode. All this fiddling around really lets you show off your screen designing skills!

Here's my masterpiece *(Who're you kidding? Ed)*, which was originally sketched, as were all the others, on the screen in felt tip pen and then copied with the line drawing facility. I'm sure you can do a lot better!

Wot! No lines?

If you don't intend to sit for hours in the excellent magnify mode, you'll find drawing with a joystick a right pain. *Doodle*'s a letdown in the line drawing department.



Doodle comes out tops for colour! Errors when colouring can very easily be rectified. No other art pack allows such flexibility.

Don't adjust your specs — Hulk's teeth are s'posed to be wonky! You could've opted to sketch in a few and copy them — a fine example of *Doodle*'s flexibility. But this facility's not much cop when creating a cock-eyed creep like this Hulk.

OK, I'll come clean ... I cadged a bit of help. Lurking behind thic piccy are a host of Help screens which reveal all an aspiring artist need ever know.

Mr. Pixel's Programming Paint Set

Mindscape £14.95
Cassette

This one's strictly for kids and beginners. Its excellent repetition of basic patterns lets you build up a simple shape and print it all over the screen. It also has a good multicolour fill routine.

Since this sticks quite rigidly to the programming format, there's little scope for drawing really complex pics. And don't blink or you'll miss the palette — it offers only four colours. Cursor movement is very slow and laborious — it's not direct but is activated via a little compass style icon. In fact, the whole caboodle is operated thus — very frustrating.

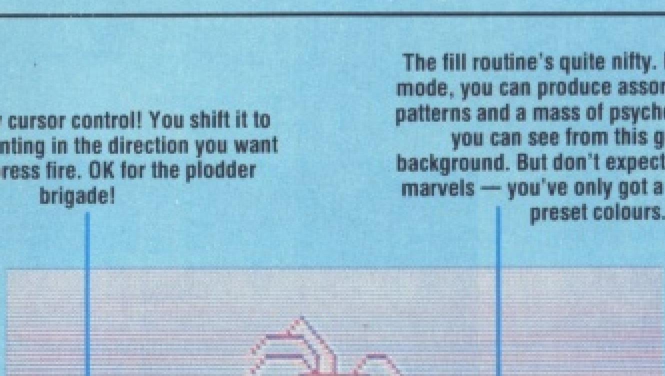
Strictly for the kids, it's fun and educational. The blurb on the box says it "develops computer literacy and inductive reasoning". Could've fooled me!

Ease of Use	3/10
Facilities	5/10
Picture Quality	3/10
Picture Completion Time	45 mins

What clumsy cursor control! You shift it to the arrow pointing in the direction you want to go and press fire. OK for the plodder brigade!

The fill routine's quite nifty. In multicolour mode, you can produce assorted chequered patterns and a mass of psychedelic lines, as you can see from this gruesome background. But don't expect multicoloured marvels — you've only got a choice of four preset colours.

These little arrows let you shift the menu back and forth, in a sort of 'duckshoot' manner. Not quite the real McCoy — it really plods along!



OK, so Captain Capstick's not quite a super hero but then *Mr. Pixel*'s not a super hero type of package. It's not that it's a badly written program — it's just that memory's limited so you've got to remember what you've been told at every stage.

Here's *Mr. Pixel*. He acts as your 'turtle', this being a sort of Logo type program. You can shift him to another spot on the screen before selecting and using another crayon.

Repeat mode came in handy. As you'd expect, it lets you repeat what you've done up to now. The drawing's built up over your current masterpiece, making repetitive patterns a doddle. *(Shouldn't that be doodle? Ed).*

ACTION REPLAY

Welcome Max Phillips, Nik Lumsden *and a best ever scoring system to the pages where the latest games get their shames and glories ...*

Originality | Playability | Graphics | Value For Money

Hey! We've waited all our lives for this. Both the regular replay riders, Steve Malone and Pete Connor have been injured in action. Pete's gone to pastures new — Amstrad Action magazine (poor boy) but Manic Malone should be back with us next month! In the meantime, we've won the mad stampede to fill their places for this issue at least.

Before we get going, we've had a fiddle with the scoring system. Each game gets separate ratings for presentation, playability, value for money and originality. Presentation includes everything from packaging and instructions to flash graphics, super sounds and clever coding. In addition, each of us will give our own personal five-star overall rating for each game. That's got to be nine out of ten for value for money before we start!

The games market still seems a little scorched by the sun (OK, maybe it's got soaked in the rain). Perhaps software houses think us game players actually go on holiday in the summer (c'mon, we just play more games) or maybe programmers hibernate during the long, hot months. Even so, there's a couple of new things to watch out for — Konami's long awaited Hypersports (on the Ocean/Imagine label) is everything you dreamed of and Creative Sparks had a real spark of genius with its Mad Doctor. OK, are you ready? Let's get down to business

MAD DOCTOR
Creative Sparks £7.95

Originality	Playability	Graphics	Value For Money
9	9	7	8

Max *****
Frankly, this is a Frankenstein game and a monsterous hit it's going to be too. Your ambition in life is to impress the villagers by bringing to life your own monster made from the spare parts of corpses — mostly bits of those same villagers in fact.

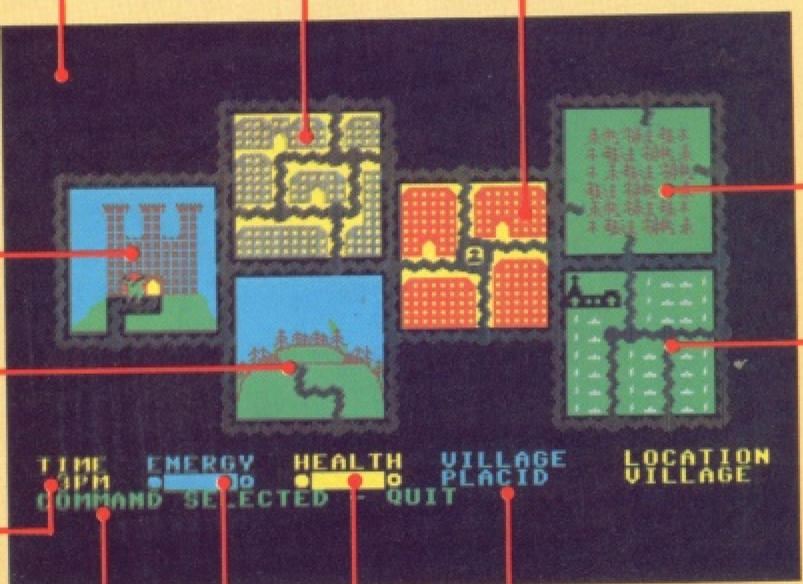
It's an adventure really but since you wander round and choose from a set list of commands from the comfort of your joystick it's a doddle to play. The crude 3D graphics aren't great but the game feels so real. All the villagers have their own lives and get up in the mornings and go about their business. So most of your dirty deeds have to be done at the dead of night. And you've got to take time to eat and sleep yourself.

Let's get one thing straight though — this is an evil game. I mean who could possibly enjoy terrorising the local village, knocking off its inhabitants one by one and sawing them up? (*I bet you could! Ed*) Even sneaking about at midnight, burying the remains in the pub floor. Who'd think of locking there? Sneaky, eh? Oops, I'm not s'posed to be enjoying this.

After all, you go for a gentle stroll in the cemetery and you're given the chance to start digging up bodies. Talk about killing time. Don't reckon they'd be fresh enough really. What I need is a corpse off the gallows and to finish up a couple of very recently deceased volunteers and ... sorry, I got carried away again.

My Uncle Victor scares me too. The eyes in his portrait seem to follow me everywhere and I found a pile of bones in the old dungeons with a bolt through its neck. I was just reading his book 'Reanimation of Dead Tissue' in the library and he seems to have had a lot of experience in these matters. Once I've got my creation together I've got to drag it up to the Druid infested stone circle and get it struck by the eternal lightning that wears away at the mystical stones. I want my mummy!

This is a nice one Creative Sparks. Franks very much! It's gonna take ages to solve as you need to collect the right sort of bits at the right time. My studies tell me that I've got to use the policeman's brain cos he's clever. I'm not sure about that. Maybe a tender young *Your 64* subscriber would be a better idea ...



You get the map screen whenever you're wandering round the village paths. Once you get somewhere, you get a 3D view of the scene.

The poor quarters are a good place for spares — lots of thieves and drunks who, if they won't help, will certainly not be missed ...

Watch the town centre — you'll have to steal lots of useful tools from around here but it's also the site of the cop shop.

The forest is a maze inside. It's a great place to shake angry villagers or pick off the odd volunteer out on an evening stroll.

Your pad is the forboding castle. The locals are, quite reasonably, terrified of it. So it's a good sanctuary and a place to carry out your experiments...

Lightning Hill is the mystical stone circle. Be careful not to cross the druids cos you'll need to drag your creation here to bring it to life ...

The cemetery is a sort of supermarket — lots to choose from but most of it has gone off.

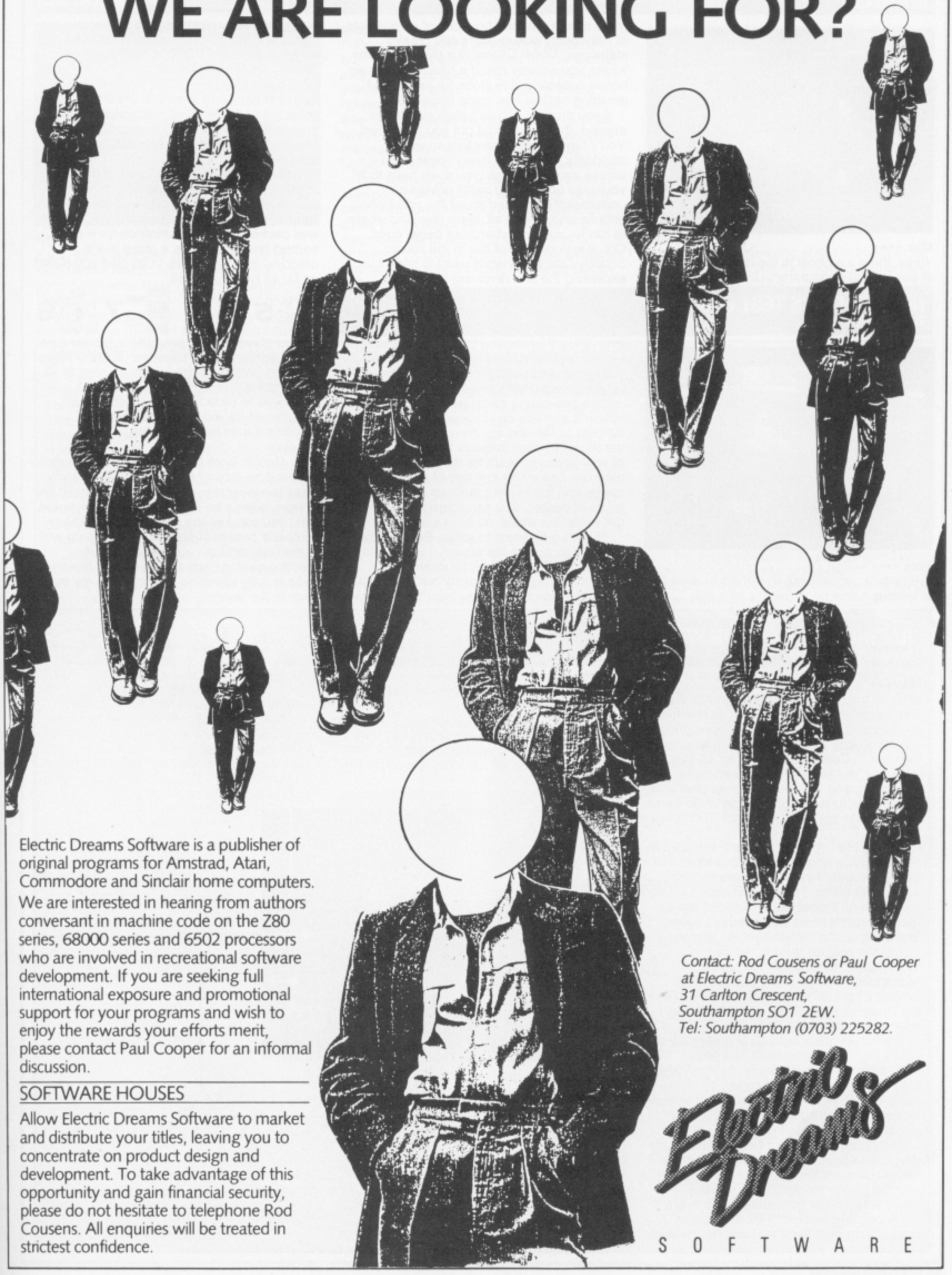
Watch the Clock! Work at night and play the nice guy during the day when everyone else is up!

Pick your commands by moving the joystick up and down with Fire held down.

Keep an eye on your health and energy. Like mummy told you, remember to eat and sleep well. And if someone decides to use your head as a football — leggit!

Watch the mood of the villagers. If they get cross, lay low for a while till things cool off.

ARE YOU THE BRIGHT SPARK WE ARE LOOKING FOR?



Electric Dreams Software is a publisher of original programs for Amstrad, Atari, Commodore and Sinclair home computers. We are interested in hearing from authors conversant in machine code on the Z80 series, 68000 series and 6502 processors who are involved in recreational software development. If you are seeking full international exposure and promotional support for your programs and wish to enjoy the rewards your efforts merit, please contact Paul Cooper for an informal discussion.

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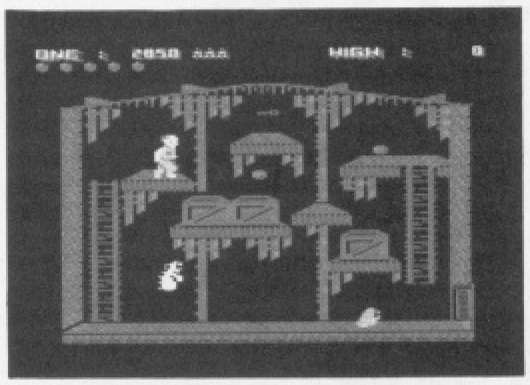
Contact: Rod Cousens or Paul Cooper
at Electric Dreams Software,
31 Carlton Crescent,
Southampton SO1 2EW.
Tel: Southampton (0703) 225282.

Electric Dreams

S O F T W A R E

GHOST CHASER
US Gold £9.95

5 8 8 7



Max ★★★★
Yikes, there's a ghost in the machine! In fact, in this jolly little romp from US Gold, there's more than a haunted houseful of ghosts, lots of trapdoors, locked doors and creaky stairways. *Ghost Chaser* is a platform game where you wander round a beautifully drawn house collecting little blobs for points and avoiding nasties that come to get you.

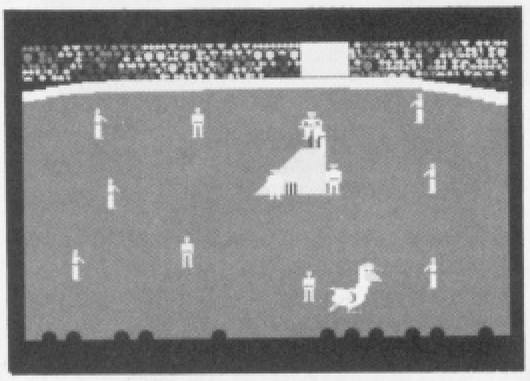
If you thought you had platform games sussed, this one should put you to the test. You'll have to learn how to leap over trapdoors, duck from flying spirits, inch across narrow railings (you even have to lift your legs up to avoid nasty goings on underneath), turn and shoot the odd flying ghoulie and, above all, learn how and where to run for your life when your nerve goes. Cor, it was never like this in the places Scooby-Doo and friends used to hang out, excepting the odd revolving bookcase!

Graphics are dead cute (all hi-res you know) and the action is certainly hair-raising at times. It has one variation on the usual theme — when you lose one of your six lives (six? you'll need 'em), you're stuck back in the room you were in and all the blobs you've collected so far magically reappear. Maybe the code's haunted but it's certainly a help notching up the old high scores ...

Nik★★★
If I have to climb another ladder or cross another platform, no matter how fiendishly constructed, then I might as well take up window-cleaning. Isn't it time Willy Blagger was packed off to Torremolinos for a well-earned paella? There's a ghost in the machine and it can stew in its own ectoplasm as far as I'm concerned.

IAN BOTHAM'S TEST CRICKET
Tynesoft £9.95

5 7 7 6



Max ★★★
A little late perhaps but this one's at least got a famous name behind it. It's also got everything there is to a cricket match except oiling the bats, making daisy chains when you're out and getting the grass stains out of your trousers (that's why I gave it up).

It's a two-player game (wot, no computer option?) and you can choose from a 16-over, 32-over or two-innings match. You can use the teams as they come or type in the names of your favourite team for the fun of it. The batsman can go for any one of eight types of stroke and the fielding team for one of four types of bowler. You can score 4s and 6s, get extras for wides, no balls and so on.

There's a few nice touches; Doodles the Duck trogs across the screen if you're out without scoring any runs for example. However, there's more nasty bits — the little manual is horribly put together. You lose bits of your players when selecting a bowler type, your batsman doesn't seem to actually move when he swings for the ball, but worse of all, hitting the ball is nigh on impossible. Our tactic was to slide the ol' Quickshot onto auto-fire which made the game more playable if a lot less enjoyable.

Nik★★★★
After Gooch, here comes Botham. The catch *(Howzat for a pun? Ed.)* with this one is you need two joysticks, one for each team. I'd like to have been a bit closer to the action, but at least you can see the whole pitch and have complete control of fielders. It stands up well to the test, though you'll need a lot of practice getting used to batting and bowling. I was quickly stumped and followed my duck back to the tavern.

RACING DESTRUCTION SET
Ariolasoft £14.95 disk

5 5 7 6

Nik★★★
After all the dazzle and razzamatazz that *Skyfox* generated, here's another one from the Electronic Arts, er, garage. Have they done it again? That title sure has an ominous ring to it ... Death Race 2000 an' all that. Well, um, the elegant title screen looks promising, and there's a good up-beat jazz soundtrack to keep you tapping while Senior Citizen 1541 grinds its dentures ... then we're off!

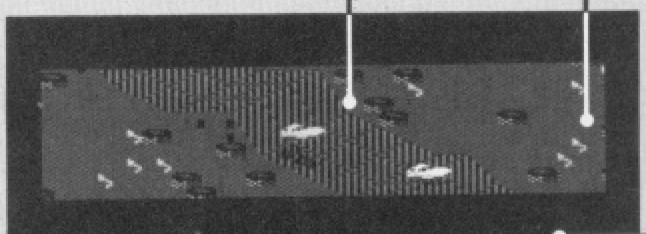
What's this? A horizontal split screen á la *Pitstop* with a wobbly carpet that looks like a bit of corrugated cardboard, wandering off at several tangents. For this first stint, I elected to remain on Planet Earth, so what are all these barber's poles and manhole covers cluttering up the terrain? Maybe someone pulled the plug on Venice. As for the 'customised' cars, they may not be Maseratis, but they could just about be leftovers from Broad Street (and don't Give My Regards to that). So, graphics aside, howzabout the action?

The crinkly track's a sort of meandering figure eight, furrowed folds and ridges, which makes for some pretty hairy manoeuvring. One minute you're shooting skywards — quite literally — and next you're plummeting down and crashing back to meet a knife-edge 'crease' in the tarmac.

And up on Saturn and Uranus, things are much the same: the changes in driving technique were too subtle for me to grasp and the barber's poles of Earth were replaced by other unidentified bric-a-brac. It's a long way back, but it'll be double-declutching right back to Bumping Buggies.

This is your car, the natty red one, at the start of a lap.

Part of the scenic delights. There's a lot of them about on the Motox track.



Not a lot goes on here. A stopwatch might have been helpful.

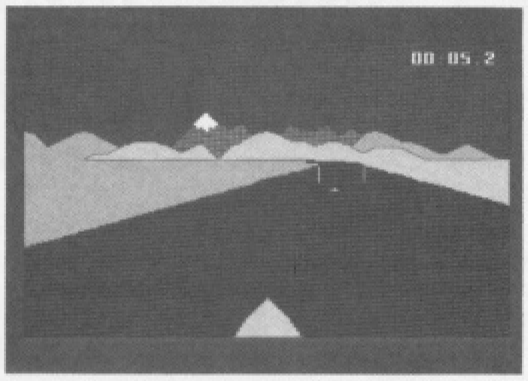
These black boxes seem to support the ramp. Better steer clear.

If you wander off among this assorted ironmongery, things get pretty tough.

Your opponent, or the computer, caught in mid leap.

KAYAK
Creative Sparks £2.50

5 5 4 6



Nik★
If you fancy paddling your own canoe in the world water slalom championship, you can get an authentic taste of what it's all about by sitting in your bath and flailing about with a wooden spoon. Which is to say that I found this particular Sparkler a very damp squib indeed.

Primitive graphics can have a certain charm in some games, when they're tucked away in the background and don't intrude on your concentration. In the case of *Kayak*, however, they dominate the screen. Your little craft is merely represented by its prow, which sits bottom centre of the screen, and the rest is taken up by the river and its banks, swimming drunkenly in all directions.

The 'soundtrack', I assume, is an attempt at impersonating the dip and splash of your paddle as you lurch ungracefully towards the gates you're supposed to negotiate. If it reminded me of anything at all it was of someone jogging in a squeaky pair of boots and occasionally bumping into large pieces of furniture.

The rhythm is constant and bears little relationship to what your craft is up to, so your first strategy is to turn off the volume. Having done that, it's just a matter of steering your little craft between 25 gates and arriving upstream in the shortest possible time.

Your performance is recorded on screen by black squares for gates cleared successfully, white squares for poles bumped into, and a running clock. At the end of round one, you're back where you started and the ordeal is repeated. Joystick response seemed pretty erratic and sometimes I seemed to be scuppered or started going backwards. Unless you're a sucker for bad trips, I suggest you take a boat out on the Serpentine!

Max ★★★
Not my idea of messing about in boats at all. *Kayak* is all a bit fast moving and demanding on the old grey matter. The 3D graphics must be good value even if they are a bit jerky and you can end up going round in small circles. Like they say, no Canoes is good Canoes.

HYPERSPORTS
Imagine £8.95

7 8 9 8

Nik★★★★
This bummer of a summer has certainly boosted the lure of the Great Indoors. And to add to the inducements of tanning by the light of your VDU, there's been an endless gush of sporty simulations to tone up your muscles without getting your athlete's feet wet. If all this hyperactivity hasn't already relegated you to the reserve team, *Hypersports* may do just that.

Last year's epic *Summer Games* set the general format for a whole marathon of imitators. What was left for the also-rans, you may ask ... underwater croquet? *Hypersports* brings us six more, some similar, but others quite different. The line-up this time is swimming, skeet shooting, long horse, triple jump, archery and weight-lifting (ouch!). There's surely something there for even the most laid-back among you.

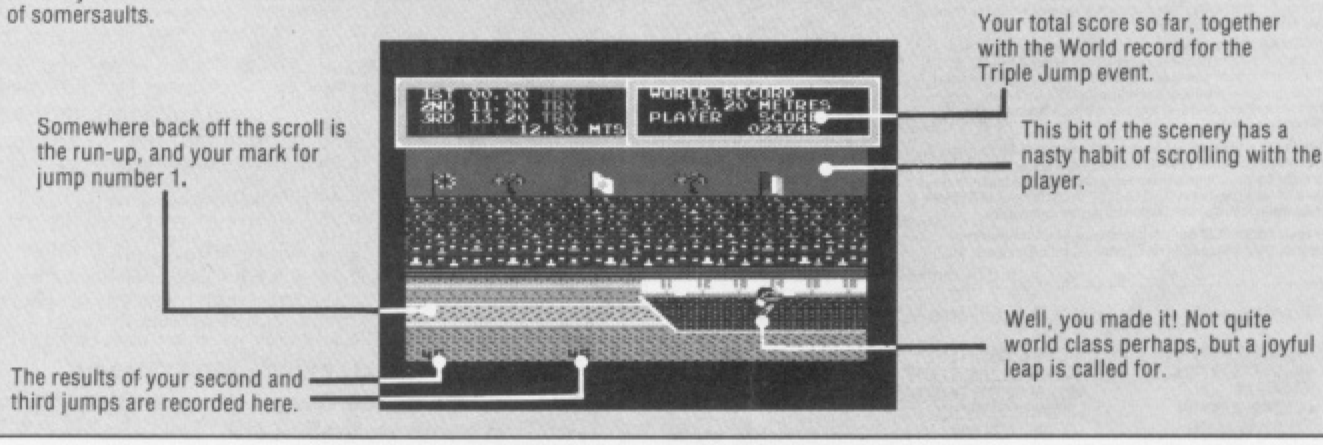
The first thing that'll impress you unless you're a tone-deaf nerd (in which case what's your nose doing in a nice mag like this), is the music. While loading, you're treated to what has to be the best soundtrack yet heard on any micro this side of the solar system: lots of stringy stuff with great backing, and then — da-daah! — you're thrust into a full 'orchestral' rendering of Vangelis' *Chariots of Fire* which, believe me, sounds every bit as good (or gross) as the original! But having been suitably boggled, it's off with the tracksuit and on with the game.

Demo mode let's you see the first four events but, be warned, you'll have to sit through a full replay of *Chariots of Fire* between each section and it wears a bit thin after a while. First off, you're in the water for a swift two lengths against three competitors, using the notorious joystick-jiggling technique and the fire button for 'breathing'. You can also switch to keyboard any time you like — or when your wrist gets dislocated. Once you've notched up the required score, you're whisked straight into the skeet shoot.

An Olde Norseman tells me this comes from the Olde Norse word, skeyti, meaning a thrown object (who sez we don't edukate our readers?), but they looked more like airborne Cornish pasties to me. Anyway, they're clay pigeons to you and, if you shoot 'em down pretty sharpish, the long horse awaits you. This gives your wrist a well-earned break as the leaping and somersaulting is all controlled by fire button only — it's all a matter of co-ordination; and the same can be said of the other three events.

The instructions are a bit on the flimsy side, but there's enough to get you into the game without a course at the Open University. I'd have liked to have been able to choose the events in any order, rather than having to battle doggedly through them one by one, but this is a one-tape deal and it's a very generous 64k's-worth.

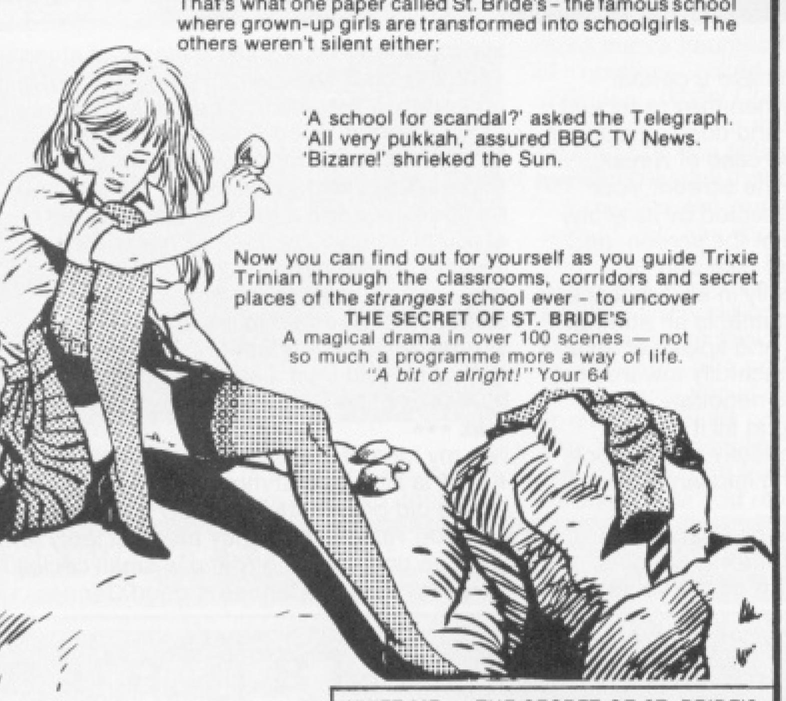
The graphics and animation are also pretty stunning and, although they lack the clean art-deco lines of *Summer Games*, there are lots of neat touches and more than a sprinkling of laughs. What's more, it won't wear your joystick out. If this one doesn't make the charts I'll eat my old running shoes — spikes 'n' all.



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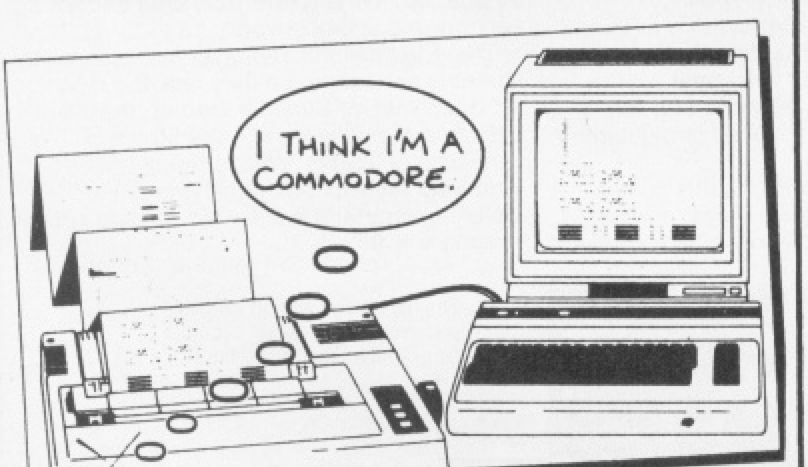
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How many Commodore home computer owners, when faced with buying a printer, have longed to own an Epson but been put off by the problems involved? Firstly, it's not easy to connect the two together. Secondly, even when connected, it may be necessary to load driver software or the cartridge slot may be unusable. Finally Commodore-specific characteristics such as graphics and formatting commands will not be available.

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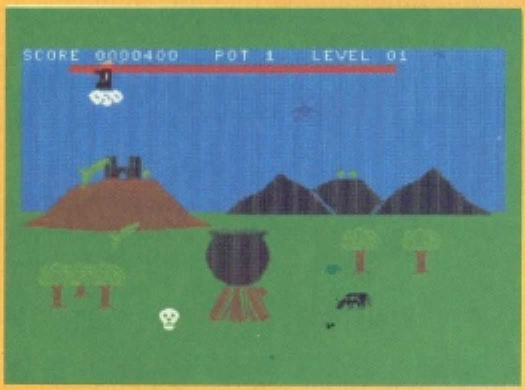
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MERLIN
Creative Sparks £2.50

6 7 6 8



Nik★★
The name Merlin, leaving aside its hippy connotations, should conjure up visions of Arthurian legend, the Sword Excalibur and the beautiful Guinevere. So what's a nice wiz like him doing in a game like this?

As Merlin, your chore is to ward off the forces of evil with the aid of various magical ingredients lying around. To top up your magic powers, these must be chucked adroitly into your cauldron, conveniently placed centre-screen, whilst avoiding the airborne nasties who try to stop you.

Meanwhile, parachutes descend and drop gruesome gunge into the cooking-pot, which will quite wreck the flavour of your home-brew, to say the least. And on top of this lot, watch out for the Hellwasp whose sting means instant death — yes, even for clever old Merl.

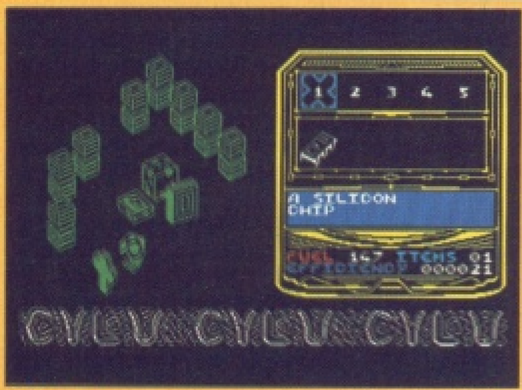
The action's fast and furious in a primitive sort of way and, even if the backgrounds look as if they'd been drawn by a clever five year-old Yugoslavian, they won't intrude too much on your concentration.

At a bargain basement price this just about scrapes through as an also-ran. If it were Christmas it might help to fill a very small stocking; but as a thing of beauty's only a joy for a fortnight these days, it probably won't be on the shelves for that long.

Max ★★★★
Yeah! An honest-to-goodness el cheapo shoot 'em up. Unlike its rivals, *Merlin* is very fast and very smooth. Having to keep picking things up and potting them gets a good chaotic screen going. OK, it won't last forever but it will definitely keep you on your toes for a day or two.

CYLU
Firebird Software £2.50.

5 6 6 7



Max ★★
I know it's a cheapie and I know that one G. Foley has put a lot of time into creating *Cylu*, but it's still a disappointment. It's an arcade/adventure based on *Knightlore*-style 3D graphics. Your job as what appears to be a demented two-legged ladybird with five cargo bays (look, I didn't write the program), is to collect a bunch of software chips and odd objects from around a spaceship style maze.

You can disable force-fields by returning lost CPU chips to the master computer and there's apparently some teleport facilities knocking about somewhere. The biggest hazard appears to be running out of fuel. But you can cure this by picking up a fuel cannister and using it when you need to. Trouble is, like so many things in the game, Firebird doesn't bother to tell you what a fuel cannister looks like (it's a T shaped box in case you need to know).

With most games I don't mind spending a few goes working out what's what but *Cylu* is just such a bore I couldn't muster up the enthusiasm. Movement is jerky and tricky to control. You score well by getting as low an efficiency rating as possible and so on. Salut *Cylu*. Firebird can do better than this and so can you.

Nik★★★
Adventuring in mazes is still all the rage on the planet *Cylu*, and this one, high on sci-fi content is as good as any. You need to be a pretty nifty operator with both joystick and keyboard and if you don't refuel regularly you're quickly banished. If you want to become Master of the Universe for about two quid, then step right in...

TOUR DE FRANCE
Activision £9.99

8 6 8 8

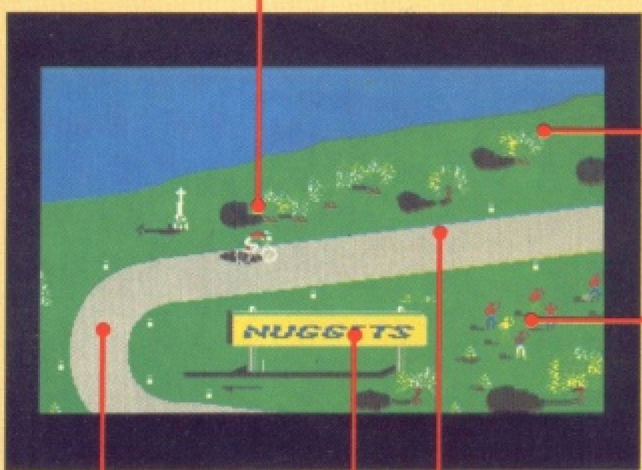
Nik★★★★
Venez avec moi en bicyclette, mais forgettez-not to branchez le joystick dans le port 2. Yes folks, it's *Tour de France* time in the Land of Vin Extraordinaire. In case you've never stepped off our funny little island, just across that narrow strip of water there's some pretty droll things afoot. The big event over there is the annual bicycle race — as important to them as le football and cricket are to us, and just as international.

Tour de France comes with full official approval. The aim is to pedal your way like les clappers right round the 16-stage circular route, starting and finishing in Gay Paree. You can use joystick or keyboard in various configurations: for instance moving the stick left and right controls the left and right pedals, whereas left and fire will steer you left, and tapping the stick forward will change to high gear. Sounds easy, maybe, but it takes a bit of getting used to.

If you watch the loading credits, you'll see a lot of exotic names which leads me to suspect the game's actually of Hungarian origin — and it shows! Once you climb on your bike, outside what looks like the Pompidou Centre, you get that feeling that you're in an Eastern Block cartoon — more like Prague than Paris, more like Budapest than Bordeaux. It's all very cute and folksy, but none the worse for that, with the multi-direction scrolling and landscapes full of cheering peasants at every turn. You even crash into billboards advertising the likes of Laskeys and WH Smith — just to make us Brits feel at home.

Up to six contestants can take part in the race, but only one at a time, so you'll need a long weekend if you intend to complete the Grand Circuit. On the whole though it's all très charmant, and if you feel like taking a trip abroad the easy way, this won't get you saddle-sore. Bon chance!

C'est tu on yer bike complete with all the togs to make you really feel the part. The only thing that's missing is the onions.



A French tree! They've included a lot of these to jazz up the scenery — but *you* certainly won't get time to look at it.

This motley crew look like they're break-dancing — but they're actually cheering you on through your hazardous journey.

Watch those nasty hairpin bends — take them too fast and you'll end up on your backside.

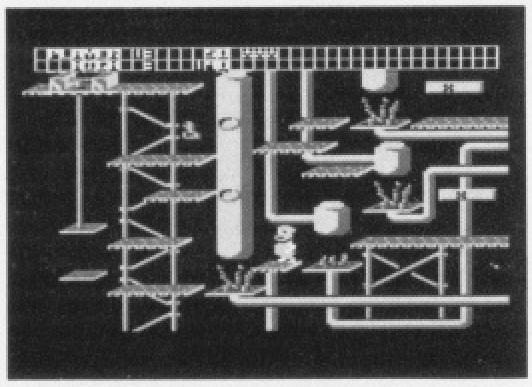
Ooh la la! You'll need plenty of pedal power if you're to get up some of the steep inclines.

Just to make you feel at home there's some good ol' British advertising. Nuggets — what they?



BEER BELLY BERT IN BREW BIZ
US Gold £9.95

3 7 7 6



Nik★★
If you cast your bloodshot orbs over any software chart you can't fail to be impressed by the number of winners scooped by US Gold. Anyone who's raided Moscow or busted dams with such aplomb, however politically dubious this may seem, should be treated with a degree of respect and judged by very high standards indeed. And that's the tone of this review.

Brew Biz, judged by these same high standards, is a pot-boiler. Don't get me wrong, but it's just another of those *Manic Miner* clones with the manic element missing — a Yankee doodle, if ever there was one.

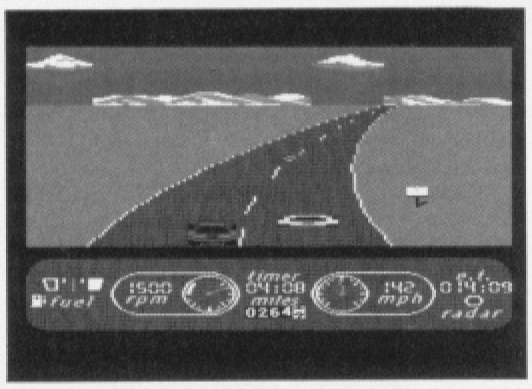
Beer Belly Bert's biz is a brewery alright, but a platform is still a platform, and a ladder's still a ladder, whatever the setting. He visits various sections of his factory — shipping, production, control where, by all appearances, the workers have gained control. He gets wafted up by air-vents and shot at by other little beer-belly look-alikes while attempting to collect keys (now where have you heard that before?).

If you're looking for more of the same thing, then Bert might go some way towards satisfying your insatiable needs — if not, you'll be perfectly happy to remain in the company of *Jumpman* and his ilk.

Max ★★
More American fodder brought to your screens by dear old US Gold. BBBBB (enjoyed that!) is a competent but certainly not a special brew. My interest in the brewing business quickly lost its fizz. I'll spare a thought for all the trouble someone's been to the next time I grab hold of a Budweiser ...

GREAT AMERICAN CROSS COUNTRY ROAD RACE
Activision £9.99

6 9 9 8



Max ★★★
Got a strange parcel through the post yesterday. Could this be it? An anonymous envelope containing a solitary gumball? Nope, it's just the latest cross America high-speed, high-risk road race game. And it's got the thrills you're looking for. It's hammer-to-the-metal, watch for those smokeys, 10-4 good buddies and away we go...

The thing about *The Great American Cross-Country Road Race* is realism. You can pick one of four cross-continent routes. As you zoom along the rather bland roadway, you'll see grass, deserts, mountains and so on depending on where you are in the great big US of A.

Fun as the scenery may be, the driving side of things belongs in the arcades and not on the roads. The only way you'll keep in the race is to jet along at a modest 180mph!

Brake really hard when you see a gas pump or push your car 100 miles to the next one. Crash a radar trap at 220mph and the speed cops will nail you in 200 yards flat — they must use rockets! But if you want a fast, fun and long lasting road game, this has to be on your list. Right now, I'm gonna nip out for a MacDonalds — I've driven at 190mph all night and only just made it to LA.

Nik ★★★★★
This is a no-nonsense, all-out, coast-to-coast dash across the US of A with all the choices you could ever wish for. Day and night driving with great graphics and changing weather conditions, all go to make this a winner. Watch the gear changes, though or you'll find yourself 'pushing' your car to the next gas station! Get moving! What're you waiting for?

WIZARD
Ariolasoft £9.95 cassette £12.95 disk

6 9 9 9

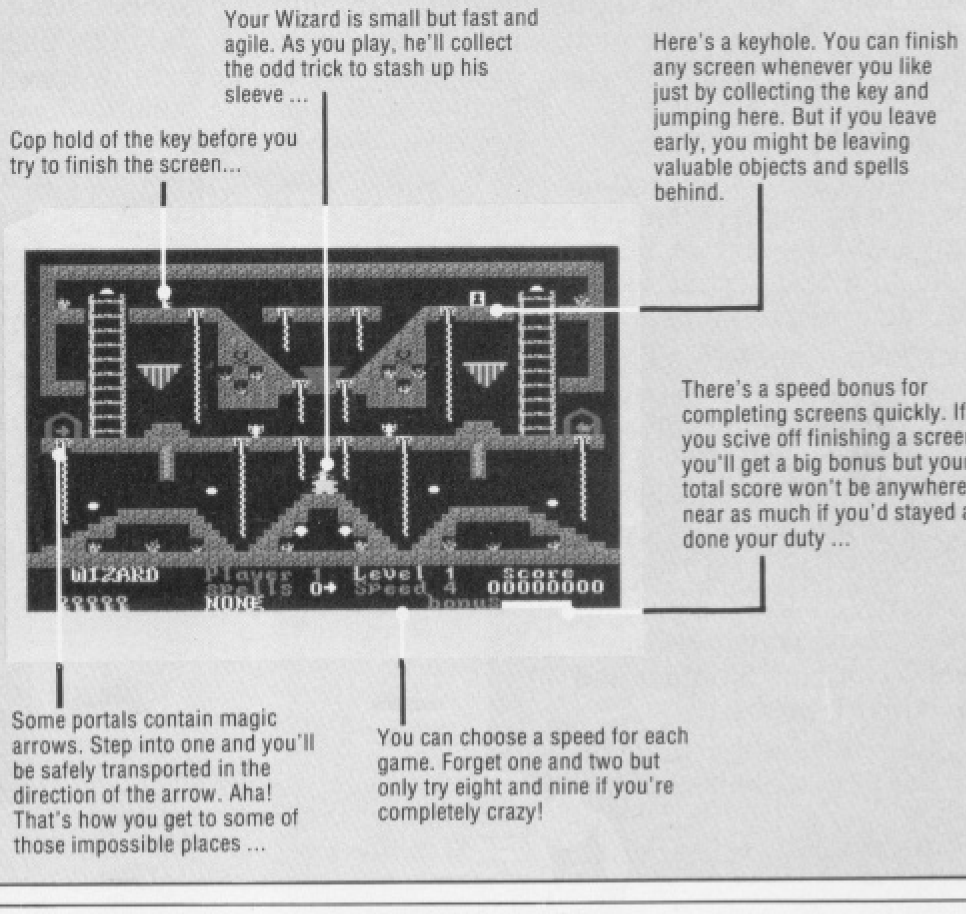
Max ★★★★★
Way to go! Remember *Jumpman*? Endless high-speed platform action on 1541 disk? *Wizard* is the same sort of thing with a big bonus — you can edit and create your own screens. So not only does the game go on for ages as it is, you can make it infinite by dreaming up new screens, having little compos with your friends and so on.

As platform games go, this one's really good. There's loads in it — ropes, ladders, stairways, spells, gold bars, chalices and a veritable menagerie of meanies. You move from screen to screen by first collecting a key and then jumping on the one (or more) keyholes dotted about. You can play the screens in order or play a mystery game where the 64 chooses the next screen randomly.

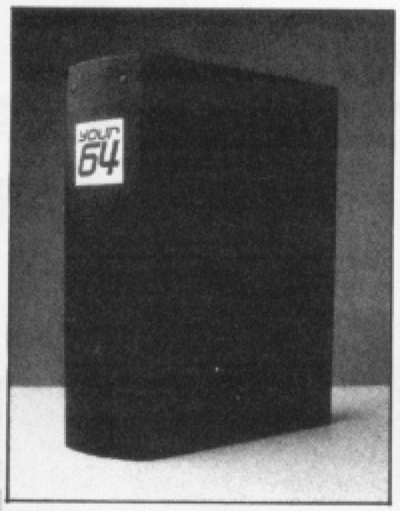
Your poor Wizard survives mostly by his wits but you can resort to spells, such as invisibility to help him through the last few seconds of a screen. The screens aren't stactic either — picking up certain objects sometimes causes new ladders or ropes to appear while on others the platforms rapidly disintegrate as you make your way round. Game speed can be varied from one to nine — one is definitely tedious while I wouldn't dare play on anything more than six. Control of your diminutive sprites is excellent — all those skills such as inching to the edges of platforms ready for a big jump, ducking and jumping are really precise.

But the real fun comes when you park the game and load up the editor. *Wizard* can handle up to 100 screens and you can either mess about with the existing ones (great for cheating) or start from scratch. Creating complex screens like the ones it comes with can take a while but you can have a ball doing really simple but fiendish puzzles.

Wizard is one of those flash American games that does everything the way it should. It's a heavy dose of magic that should be fun for years to come ...



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YOUR 64

PROGRAMMER OF THE YEAR

commodore

There are sprite designers and there are sprite designers. This one from A J Gould puts him well in line to become 64 Programmer of the Year and win a brand-new Commodore 128 . . .

Sprite designers are a popular choice for entries in our search for the 64 Programmer of the Year. Of the ones we've seen so far, A J Gould is far ahead with his machine code utility listed here. His *Sprite Editor* is not only fast and reliable but it has a host of extras — it supports multi-colour mode, does scrolls and reflections and offers a test mode where you can see your sprites animated as you create them. In short, it's a commercial quality package just waiting for you to type it in!

Get A Load Of This!

Now, we admit, this is a big listing! But if you need a good sprite designer, it'll be worth your while having a go! To make life easy, the program is divided into three chunks of machine code which we've listed in 128-byte blocks of hex. Our loader program checks each block as it creates a machine code file for you.

So the first thing you've got to do is enter and save the Basic loader. The loader is designed to work with the 1541 disk drive. If you want to use cassette, change line 30 in the Basic loader to 30 OPEN 3,1,1,FI$ and change the LOAD . . .,8,1s in the SPRITE BOOT program to LOAD . . .,1,1s.

Now you've got to enter the data in the SPRITE 2 listing. To do this, load up a copy of the loader and start entering each block as a set of DATA statements on the end of the program. Your first statements will look like this:

```
1000 DATA 20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
1010 DATA 20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
1020 DATA 20,20,20,20,20,20,20.20.20.20.4F.77.77.77.77.77.77 etc
1070 DATA 20,20,20,20,20,20,6A,20,20,74,A0,A0,A0,A0,A0,20
1080 DATA 8205:REM BLOCK 1
```

and so on. Doing it this way, you can take a break and SAVE where you're up to whenever you like and can go back and correct mistakes without having to retype a whole block.

Once you've done all 33 blocks, enter RUN and give the filename SPRITE 2. If you're lucky, the loader will whizz through and create a machine code file of SPRITE 2 for you. Any typing mistakes and you'll have to go back and check the relevant blocks of DATA.

Got the idea? OK, once you've done SPRITE 2, load up a fresh copy of the loader and get to work on SPRITE 3 and 4. These are 16 and 21 blocks long and so shouldn't take quite so long to bash in. At the end of this, you'll have three machine code files stored away. All you need to do is type in and save the little boot program called SPRITE BOOT. To run the editor, enter LOAD "SPRITE BOOT",8 and RUN. Away you go . . .

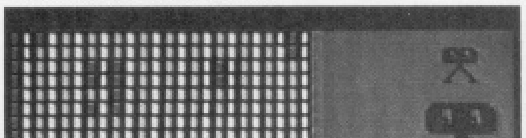
Time Is Running Out . . .

If you want the chance to become 64 Programmer of the Year, you'd better get your skates on. Last closing date for entries is October 31st but in the meantime we're publishing one of the best entries so far each month. Each of the published entrants gets not only *Your 64*'s usual generous fee but £50 worth of software from those nice people at Commodore UK.

Your program can be anything you like — game, utility, application or whatever. The only restriction is that it must be less than 10K in length. We're looking for original, well programmed ideas so it doesn't matter if you write in machine code or in Basic or if your program's gigantic or short and neat. Brain not brawn is the motto. You should send us a cassette or disk, a listing if you can and some notes on how to use the program and how it works.

Entries should be rushed to 64 Programmer of the Year, *Your 64*, 14 Rathbone Place, London W1P 1DE. Oh, and we almost forgot, win the whole competition and you'll not only win the longest accolade in town but you'll receive a brand new Commodore 128 — Commodore's 64 compatible, CP/M compatible wonder machine! Get going now . . .

LOOK SPRITELY!



Wot, no hands? This 'armless creature shows what can be done with this spiffing *Sprite Editor*. Bet you can do a lot better!

Here's A J Gould's *Sprite Editor* in action. There are three help screens and every command prompts you for the info it needs so you shouldn't have any trouble working out how to use everything. You can edit up to 31 sprites at a time, numbered from 000 to 030. To make drawing easy, set repeat on by pressing R and a cursor scroll direction with the keys 1-9 and then use SPACE or F7 as appropriate. Pretty fast isn't it?

Enter and save this loader first. You'll need to use it three times to enter and save each of the sections of machine code data blocks.

```
10 REM *** CREATE M/C FILE ****
15 HD$="0123456789ABCDEF"
20 INPUT"FILENAME";FI$
30 OPEN3,8,3,"0:"+FI$+"P,W"
40 IF FI$="SPRITE 2" THEN LA=20480
50 IF FI$="SPRITE 3" THEN LA=36480
60 IF FI$="SPRITE 4" THEN LA=16375
70 HI=INT(LA/256):LO=LA-256*HI
80 PRINT#3,CHR$(LO):CHR$(HI);
90 FOR FL=0 TO 1 STEP 0:BL=BL+1:CC=0
100 FOR I=1 TO 128:READ HX$:IF HX$="X" T
HEN FL=1:I=128:GOTO 120
110 GOSUB 200:CC=CC+A:PRINT#3,CHR$(A);
120 NEXT I
130 READ CS:IF CS<>CC THEN PRINT"CHECKSU
M ERROR IN BLOCK";BL:CLOSE3:STOP
140 NEXT FL:CLOSE3:PRINT"OK, M/C FILE CR
EATED":END
200 REM **** HEX/DEC CONVERT ****
210 A=0:FOR HD=1 TO 2:DG$=MID$(HX$,HD,1)

215 FOR HS=1 TO 16
220 IF MID$(HD$,HS,1)=DG$ THENA=A+(HS-1)
:HS=16
230 IF HD=1 THEN A=A*16
240 NEXT HS,HD:RETURN
READY.
```

Sprite Boot

Once you've created your three machine code files using the data blocks and the Basic Loader, run this to load and start our new sprite editor going.

```
10 REM BOOT SPRITE EDITOR:   A J GOULD
20 IFPEEK(16384)=173THENSYS22518
30 C=C+1:IFC=1THENLOAD"SPRITE 2",8,1
40 IFC=2THENLOAD"SPRITE 3",8,1
50 LOAD"SPRITE 4",8,1
READY.
```

Sprite 2

This is the first of three machine code sections. Enter each block of hex as DATA statements on the end of the Basic loader and run it. Save this section with the filename SPRITE 2.

```
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,4F,77,77,77,77,77,77
77,77,77,77,77,77,77,77,77,77,77,77,77,77,77,77
77,77,77,77,77,77,77,77,77,77,77,77,77,77,50,20
20,74,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,6A,20,20,74,A0,A0,A0,A0,A0,20
8205:REM **CHECKSUM    **BLOCK 1

A0,A0,A0,A0,A0,20,A0,A0,A0,A0,A0,20,A0,A0,A0,A0
A0,20,A0,A0,A0,A0,A0,20,A0,A0,A0,A0,A0,20,6A,20
20,74,A0,20,20,20,20,20,A0,20,20,20,A0,20,A0,20
20,20,A0,20,20,20,A0,20,20,20,20,20,A0,20,20,20
A0,20,20,20,20,20,6A,20,20,74,A0,A0,A0,A0,A0,20
A0,A0,A0,A0,A0,20,A0,A0,A0,A0,A0,20,20,20,A0,20
20,20,20,20,A0,20,20,20,A0,A0,A0,A0,A0,20,6A,20
20,74,20,20,20,20,A0,20,A0,20,20,20,20,20,A0,A0
12122:REM **CHECKSUM    **BLOCK 2

A0,A0,DF,20,20,20,A0,20,20,20,20,20,A0,20,20,20
A0,20,20,20,20,20,6A,20,20,74,A0,A0,A0,A0,A0,20
A0,20,20,20,20,20,A0,20,5F,A0,A0,20,A0,A0,A0,A0
A0,20,20,20,A0,20,20,20,A0,A0,A0,A0,A0,20,6A,20
20,74,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,6A,20,20,74,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
8024:REM **CHECKSUM    **BLOCK 3

20,20,20,20,20,20,20,20,20,20,20,20,20,20,6A,20
20,74,A0,A0,A0,A0,A0,20,A0,A0,A0,A0,A0,20,A0,A0
A0,A0,A0,20,A0,A0,A0,A0,A0,20,A0,A0,A0,A0,A0,20
A0,A0,A0,A0,A0,20,6A,20,20,74,A0,20,20,20,20,20
20,A0,20,20,A0,20,20,20,A0,20,20,20,20,20,A0,20
20,20,A0,20,20,20,A0,20,A0,20,20,20,A0,20,6A,20
20,74,A0,A0,A0,A0,A0,20,20,A0,20,20,A0,20,20,20
A0,20,20,20,20,20,A0,20,20,20,A0,20,20,20,A0,20
10970:REM **CHECKSUM    **BLOCK 4

A0,A0,A0,A0,A0,20,6A,20,20,74,A0,20,20,20,20,20
20,A0,20,20,A0,20,20,20,A0,20,20,20,20,20,E0,20
20,20,A0,20,20,20,A0,20,E0,A0,A0,A0,DF,20,6A,20
20,74,A0,A0,A0,A0,A0,20,A0,A0,A0,A0,A0,20,A0,A0
A0,A0,A0,20,20,20,E0,20,20,20,A0,A0,A0,A0,A0,20
A0,20,5F,A0,A0,20,6A,20,20,74,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,6A,20
10210:REM **CHECKSUM    **BLOCK 5

20,74,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,6A,20,20,74,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,4F,77,77
77,77,77,77,77,77,77,77,77,77,77,77,50,20,6A,20
20,74,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,74,01,2E,0A,2E,07,0F,15,0C,04,20
31,39,38,35,6A,20,6A,20,20,74,20,20,20,20,20,20
6086:REM **CHECKSUM    **BLOCK 6

20,20,20,20,20,20,20,20,20,20,20,20,20,4C,6F,6F
6F,6F,6F,6F,6F,6F,6F,6F,6F,6F,6F,6F,7A,20,6A,20
20,74,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,6A,20,20,74,09,20,3A,20,09,0E
13,14,12,15,03,14,09,0F,0E,13,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,6A,20
20,74,05,20,3A,20,05,04,09,14,0F,12,20,20,20,20
5488:REM **CHECKSUM    **BLOCK 7

20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,6A,20,20,4C,6F,6F,6F,6F,6F,6F
6F,6F,6F,6F,6F,6F,6F,6F,6F,6F,6F,6F,6F,6F,6F,6F
6F,6F,6F,6F,6F,6F,6F,6F,6F,6F,6F,6F,6F,6F,7A,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,85,FE,A9,00,85,FB,85,FD
A8,A9,04,85,FC,B1,FD,91,FB,C8,D0,F9,4C,E8,57,00
10310:REM **CHECKSUM    **BLOCK 8

20,20,20,20,20,20,20,20,20,20,20,20,20,20,CF,F7
F7,F7,F7,F7,F7,F7,F7,F7,F7,D0,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,F4,A0,83,8F,8D,8D,81,8E,84,93
A0,EA,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,CC,EF
EF,EF,EF,EF,EF,EF,EF,EF,EF,FA,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
10577:REM **CHECKSUM    **BLOCK 9

20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,13,08,09,06,14,2F,31,20,2D,20,13,08,09,06,14
2F,39,20,2E,2E,2E,2E,2E,20,03,08,01,0E,07,05,20
03,0F,0C,0F,15,12,13,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,2B,2C,2D,20,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E
3970:REM **CHECKSUM    **BLOCK 10

2E,2E,2E,2E,2E,20,0C,0F,01,04,2C,13,01,16,05,20
03,0F,0C,0F,15,12,13,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,0F,20,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E
2E,2E,2E,2E,20,0D,15,0C,14,09,03,0F,0C,0F,15,12
20,0F,0E,2F,0F,06,06,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
3819:REM **CHECKSUM    **BLOCK 11

20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,0C,2C,13,20,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E
2E,2E,2E,2E,2E,20,0C,0F,01,04,2C,13,01,16,05,20
13,10,12,09,14,05,13,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,01,20,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E
2E,2E,2E,2E,2E,2E,2E,20,01,0E,09,0D,01,14,05,20
4104:REM **CHECKSUM    **BLOCK 12

13,10,12,09,14,05,13,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,02,20,2E,2E,20,13,01,16,05,20,13,10,12,09,14
05,20,04,01,14,01,20,09,0E,20,02,01,13,09,03,20
10,12,0F,07,12,01,0D,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
3385:REM **CHECKSUM    **BLOCK 13

20,03,20,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,20
0D,01,0B,05,20,01,20,03,0F,10,19,20,0F,06,20,01
20,13,10,12,09,14,05,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,04,20,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,20
04,05,03,12,05,0D,05,0E,14,20,13,10,12,09,14,05
20,0E,15,0D,02,05,12,20,20,20,20,20,20,20,20,20
3573:REM **CHECKSUM    **BLOCK 14

20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,05,20,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E
2E,2E,2E,2E,2E,20,05,12,01,13,05,20,01,0C,0C,20
13,10,12,09,14,05,13,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,09,20,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,20
4165:REM **CHECKSUM    **BLOCK 15

09,0E,03,12,05,0D,05,0E,14,20,13,10,12,09,14,05
20,0E,15,0D,02,05,12,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,2D,10
```

```
12,05,13,13,20,01,20,0B,05,19,20,20,20,20,20,20
20,20,20,20,20,20,20,20,E6,FC,E6,FE,A5,FC,C9,08
F0,03,4C,F5,53,60,A9,19;85,FB,A9,08,4C,E8,5B,00
6250:REM **CHECKSUM    **BLOCK 16

20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,0A,20,2E,2E,2E,2F,2E
2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,20,0A
15,0D,10,20,14,0F,20,01,20,13,10,12,09,14,05,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,0D,20,2E,2E,2E,2E,20
4144:REM **CHECKSUM    **BLOCK 17

0D,09,12,12,0F,12,20,09,0D,01,07,05,20,09,0E,20
18,20,01,0E,04,2F,0F,12,20,19,20,01,18,09,13,20
20,20,20,20;20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,10,20,2E,2E,2E,2E,2E
2E,2E,2E,2E,20,13,03,12,0F,0C,0C,20,01,20,13,10
12,09,14,05,20,15,10,20,0F,12,20,04,0F,17,0E,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
3377:REM **CHECKSUM    **BLOCK 18

20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
20,20,20,20,20,20,20,20,20,12,20,2E,2E,2E,2E,2E
2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,20,12,05
10,05,01,14,20,0B,05,19,20,0F,0E,2F,0F,06,06,20
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4075:REM **CHECKSUM    **BLOCK 19

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20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
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0B,05,19,13,2C,12,05,14,15,12,0E,20,2E,2E,2E,2E
2E,2E,2E,2E,2E,2E,20,0D,0F,16,05,0D,05,0E,14,20
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3592:REM **CHECKSUM    **BLOCK 20

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37,20,2E,2E,2E,2E,2F,2E,2E,2E,2E,2E,20,05,12,01
13,05,2C,10,0C,0F,14,20,01,20,10,0F,09,0E,14,20
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2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E,2E
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3869:REM **CHECKSUM    **BLOCK 21

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3773:REM **CHECKSUM    **BLOCK 22

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0C,09,0E,05,20,0C,05,06,14,2C,12,09,07,08,14,20
20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
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2E,20,01,0C,14,05,12,20,03,15,12,13,0F,12,20,13
03,12,0F,0C,0C,20,04,09,12,05,03,14,09,0F,0E,20
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3217:REM **CHECKSUM    **BLOCK 23

20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
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13,20,0F,0E,20,2F,2E,2E,2E,2E,2E,2E,2E,2E,20,12
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00,90,20,32,90,20,4C,90,A9,0E,8D,21,D0,4C,E8,5F
5553:REM **CHECKSUM    **BLOCK 24

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3927:REM **CHECKSUM    **BLOCK 25

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3910:REM **CHECKSUM    **BLOCK 26

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4096:REM **CHECKSUM    **BLOCK 27

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0C,04,20,02,05,20,20,20,20,20,20,20,20,20,20,20
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3190:REM **CHECKSUM    **BLOCK 28

14,09,0F,0E,20,20,20,20,20,20,20,20,20,20,20,20
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4041:REM **CHECKSUM    **BLOCK 29

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4096:REM **CHECKSUM    **BLOCK 30

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4096:REM **CHECKSUM    **BLOCK 31

20,20,20,20,20,20,20,20,20,20,20,20,20,20,20,20
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20,20,20,20,20,20,20,20,A9,00,85,FB,A9,D8,85,FC
A2,E8,A0,DB,A9,06,8D,20,D0,20,00.90,A9,33,8D,15
6538:REM **CHECKSUM    **BLOCK 32

08,8D,17,08,A9,50,20,E8,53,20,1B,90,C9,45,D0,03
4C,00,40,C9,49,D0,F2,A9,54,85,26,20,E8,53,20,1B
90,18,A5,26,69,04,C9,60,D0,EF,F0,X
4618:REM **CHECKSUM    **BLOCK 33
```


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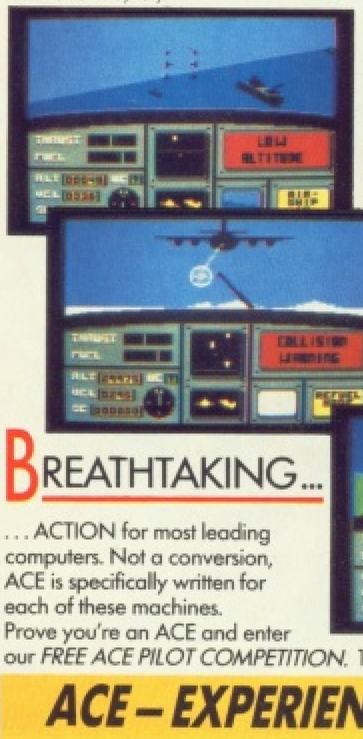
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Sprite 3

Here's the second chunk of machine code. Take a fresh copy of the loader and enter the blocks as DATA statements. Run the loader when you're done and create a SPRITE 3 file.

```
00,8F,06,8F,18,8F,1F,8F,2A,8F,3A,8F,41,8F,48,8F
56,8F,6A,8F,74,8F,7B,8F,82,8F,8E,8F,98,8F,9C,8F
A7,8F,B9,8F,BD,8F,CE,8F,DB,8F,E1,8F,E6,8F,E8,8F
00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
05,11,06,0A,0F,06,09,0A,13,09,06,06,08,09,03,0A
11,03,10,0C,05,04,04,0C,00,00,00,00,00,00,00,00
00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
6624:REM **CHECKSUM    **BLOCK 1

13,10,12,09,14,05,06,12,0F,0D,20,14,01,10,05,20
0F,12,20,04,09,13,03,3F,14,0F,20,0C,0F,01,04,10
12,05,13,13,20,01,20,0B,05,19,14,0F,20,14,01,10
05,20,0F,12,20,04,09,13,03,3F,14,0F,20,13,01,16
05,06,09,0C,05,20,0E,01,0D,05,3F,14,0F,20,05,18
09,14,20,10,12,07,14,0F,20,05,12,01,13,05,20,01
0C,0C,20,13,10,12,09,14,05,13,0E,15,0D,02,05,12
20,14,0F,0F,0C,01,12,07,05,20,2D,13,0D,01,0C,0C
2108:REM **CHECKSUM    **BLOCK 2

20,2D,06,12,0F,0D,20,13,10,12,09,14,05,3F,14,0F
20,13,10,12,09,14,05,3F,0A,15,0D,10,15,10,20,0F
12,20,04,0F,17,0E,3F,13,05,14,20,12,05,14,15,12
0E,20,14,01,02,20,14,0F,3F,03,0F,10,19,0D,09,12
12,0F,12,20,09,0D,01,07,05,20,2D,20,18,3F,14,0F
20,13,14,0F,12,05,20,04,01,14,01,04,05,0C,01,19
3F,05,0E,14,05,12,0D,0F,12,05,3F,06,0F,12,20,01
0E,09,0D,01,14,09,0F,0E,20,20,20,20,20,20,20,20
2522:REM **CHECKSUM    **BLOCK 3

86,FD,84,FE,A0,00,91,FB,E6,FB,D0,02,E6,FC,A6,FB
E4,FD,D0,F2,A6,FC,E4,FE,D0,EC,60,20,E4,FF,F0,FB
60,A9,20,0D,11,D0,8D,11,D0,A9,08,0D,18,D0,8D,18
D0,60,A9,DF,2D,11,D0,8D,11,D0,A9,F7,2D,18,D0,8D
18,D0,60,A9,10,0D,16,D0,8D,16,D0,60,A9,EF,2D,16
D0,8D,16,D0,60,A9,00,85,FB,A9,20,85,FC,A2,15,A9
18,85,FD,A0,00,A9,FF,91,FB,8A,48,A2,06,A9,EB,C8
91,FB,CA,D0,FA,68,AA,C8,A9,FF,91,FB,C8,C6,FD,D0
19395:REM **CHECKSUM    **BLOCK 4

E4,18,A5,FB,69,40,85,FB,A5,FC,69,01,85,FC,CA,D0
CE,60,78,A9,CC,8D,14,03,A9,90,8D,15,03,A9,01,8D
1A,D0,85,02,A9,E2,8D,12,D0,58,60,A9,47,85,FB,A9
3A,85,FC,A0,00,A2,28,A9,FF,91,FB,18,A5,FB,69,08
85,FB,A5,FC,69,00,85,FC,CA,D0,EC,60,AD,19,D0,29
01,D0,03,4C,31,EA,A5,02,F0,1C,A9,1B,8D,11,D0,A9
15,8D,18,D0,A9,08,8D,16,D0,A9,01,8D,19,D0,8D,12
D0,C6,02,4C,31,EA,A9,3B,8D,11,D0,A9,1D,8D,18,D0
16367:REM **CHECKSUM    **BLOCK 5

A9,18,8D,16,D0,A9,01,8D,19,D0,85,02,A9,E2,8D,12
D0,4C,31,EA,00,00,A0,03,18,A5,28,69,21,99,F8,07
88,10,FA,60,AD,FA,3F,A0,03,99,27,D0,88,10,FA,60
A0,77,A9,20,99,70,07,88,10,FA,60,AD,F9,3F,A0,77
99,70,DB,88,10,FA,60,86,FD,84,FE,A8,18,A5,FC,65
FC,AA,B9,D0,8E,A8,BD,80,8E,85,FB,BD,81,8E,85,FC
B1,FB,91,FD,88,10,F9,60,A9,00,85,FD,86,FB,A9,64
85,45,A9,0A,85,46,A9,01,85,47,A0,02,B1,FB,38,E9
16976:REM **CHECKSUM    **BLOCK 6

30,18,F0,0B,AA,A5,FD,79,45,00,85,FD,CA,D0,F8,88
10,EA,A5,FD,60,86,FB,84,FC,85,FD,A9,01,85,45,A9
0A,85,46,A9,64,85,47,A0,02,A2,FF,A5,FD,38,E8,85
FD,F9,45,00,B0,F8,8A,69,30,48,88,10,EC,A0,02,68
91,FB,88,10,FA,60,A9,00,A2,A7,A0,07,20,47,91,A5
28,A2,AE,A0,07,20,95,91,60,18,A5,28,69,21,85,29
A9,00,85,2A,A2,06,A5,29,0A,85,29,A5,2A,2A,85,2A
CA,D0,F3,60,AD,F7,3F,8D,21,D0,AD,F8,3F,8D,20,D0
16140:REM **CHECKSUM    **BLOCK 7

20,24,91,AD,FB,3F,8D,25,D0,AD,FC,3F,8D,26,D0,20
3B,91,A9,00,85;FB,A9,D8,85,FC,A2,70,A0,DB,AD,FF
3F,4C,00,90,85,FD,A9,00,A8,85,FB,A9,04,85,FC,B1
FB,C5,FD,D0,03,8A,91,FB,C8,D0,02,E6,FC,C0,70,D0
EE,A5,FC,C9,07,D0,E8,60,78,A9,31,8D,14,03,A9,EA
8D,15,03,A9,F0,8D,1A,D0,58,60,40,30,3A,43,4F,4C
4F,55,52,AA,A8,20,BA,FF,C9,08,D0,06,A9,09,A2,5A
D0,04,A9,06,A2,5D,A0,92,4C,BD,FF,85,FF,20,30,91
17396:REM **CHECKSUM    **BLOCK 8

A5,FF,E6,FF,A2,98,A0,07,20,47,91,20,1B,90,C9,03
D0,02,38,60,C9,44,D0,06,A9,08,85,3B,D0,08,C9,54
D0,E9,A9,01,85,3B,20,30,91,A9,03,A2,98,A0,07,20
47,91,A5,FF,A2,A4,A0,07,20,47,91,20,1B,90,C9,03
F0,D0,18,60,A9,00,AA,85,FB,A9,04,85,FC,A0,00,A9
03,85,FD,A9,08,85,FE,98,48,8A,A8,B1,29,85,FF,98
AA,68,A8,A5,FF,0A,85,FF,B0,06,AD,F7,3F,4C,F3,92
AD,FF,3F,91,FB,C8,C6,FE,D0,E9,E8,C6,FD,D0,D4,18
17168:REM **CHECKSUM    **BLOCK 9

A5,FB,69,28,85,FB,A5,FC,69,00,85,FC,E0,3F,D0,BD
60,86,FB,84,FC,48,8A,4A,4A,4A,18,A0,03,65,FC,88
D0,FB,A8,8A,29,07,AA,A9,00,38,6A,CA,10,FC,85,FF
68,D0,0B,48,38,A9,FF,E5,FF,31,29,4C,43,93,48,A5
FF,11,29,91,29,A5,FB,85,FD,A9,04,85,FE,A5,FC,AA
18,CA,30,0E,A5,FD,69,28,85,FD,A5,FE,69,00,85,FE
90,EF,68,D0,06,AD,F7,3F,4C,6E,93,AD,FE,3F,E8,81
FD,60,AD,F1,3F,69,30,8D,F1,3F,AD,F2,3F,69,00,8D
17769:REM **CHECKSUM    **BLOCK 10

F2,3F,C9,80,90,06,AD,FD,3F,48,B0,04,AD,FF,3F,48
A9,D8,85,FC,AD,F5,3F,85,FB,AD,F6,3F,0A,0A,0A,85
26,A2,05,A5,FB,65,26,85,FB,A5,FC,69,00,85,FC,CA
D0,F1,68,81,FB,60,68,20,14,94,20,7B,92,B0,14,20
48,92,20,43,90,20,21,90,A5,3B,20,63,92,A9,00,8D
15,D0,18,60,CE,F5,3F,AD,F5,3F,C9,FF,D0,05,A9,17
8D,F5,3F,60,EE,F5,3F,AD,F5,3F,C9,18,D0,05,A9,00
8D,F5,3F,60,CE,F6,3F,AD,F6,3F,C9,FF,D0,05,A9,14
16748:REM **CHECKSUM    **BLOCK 11

8D,F6,3F,60,EE,F6,3F,AD,F6,3F,C9,15,D0,05,A9,00
8D,F6,3F,60,48,20,8C,93,A9,80,8D,F2,3F,68,60,A5
29,85,FB,A5,2A,85,FC,A2,03,18,A5,FB,6D,F6,3F,85
FB,A5,FC,69,00,85,FC,CA,D0,F0,60,AD,8A,02,D0,06
A9,FF,EA,EA,D0,05,AD,8B,02,29,07,8D,8B,02,4C,72
93,20,14,94,48,20,9B,95,18,A2,17,A0,0B,20,F0,FF
20,30,91,A9,06,A2,98,A0,07,20,47,91,A9,00,85,FB
20,1B,90,C9,03,D0,03,68,38,60,C9,14,D0,0C,A6,FB
15843:REM **CHECKSUM    **BLOCK 12

F0,EE,C6,FB,20,D2,FF,4C,70,94,C9,0D,F0,1A,C9,20
90,DE,C9,7F,B0,DA,20,D2,FF,A6,FB,9D,04,98,E6,FB
E0,10,D0,CC,A9,14,D0,DA,A5,FB,F0,C4,A5,FB,8D,00
9B,A9,40,8D,01,98,A9,30,8D,02,98,A9,3A,8D,03,98
68,20,7B,92,B0,B2,20,48,92,20,43,90,20,21,90,A5
3B,AA,A8,20,BA,FF,C9,01,F0,0A,38,A9,02,AA,CA,6D
00,98,D0,05,A2,04,AD,00,98,A0,98,20,BD,FF,4C,CD
93,86,46,84,45,85,FE,18,20,F0,FF,A9,00,85,3B,20
17123:REM **CHECKSUM    **BLOCK 13

14,94,20,9B,95,20,1B,90,C9,03,D0,02,38,60,C9,14
D0,0C,A6,3B,F0,EF,20,D2,FF,C6,3B,4C,05,95,C9,0D
F0,16,C9,30,90,DF,C9,3A,B0,DB,A6,3B,E0,03,F0,D5
E6,3B,20,D2,FF,4C,05,95,A5,3B,C9,03,D0,C7,18,A4
46,A9,04,85,FC,A5,45,69,28,85,45,A5,FC,69,00,85
FC,88,D0,F1,A6,45,20,68,91,B0,12,C5,FE,90,09,C5
FF,F0,02,B0,08,B8,18,60,A9,0B,48,D0,03,A9,0A,48
20,30,91,A9,09,A2,98,A0,07,20,47,91,68,A2,A4,A0
15725:REM **CHECKSUM    **BLOCK 14

07,20,47,91,A9,03,A2,AC,A0,07,20,47,91,20,1B,90
C9,03,D0,02,38,60,A9,40,48,28,60,AD,F9,3F,8D,86
02,60,20,30,91,A9,0C,A2,98,A0,07,20,47,91,A0,0D
A2,17,A9,1F,85,FF,A9,00,20,F1,94,B0,27,70,E3,85
49,20,30,91,A9,0D,A2,98,A0,07,20,47,91,A0,0B,A2
17,A9,1F,85,FF,A5,49,20,F1,94,B0,08,70,E3,85,48
A9,04,E6,48,60,A5,28,85,45,A5,48,85,28,20,D9,91
A5,29,85,46,A5,2A,85,47,A5,49,85,28,20,D9,91,60
13645:REM **CHECKSUM    **BLOCK 15

B0,0A,A9,08,85,FC,A9,68,85,FE,D0,08,A9,68,85,FC
A9,08,85,FE,A9,00,85,FB,85,FD,A8,B1,FB,91,FD,C8
D0,F9,E6,FC,E6,FE,A5,FE,C9,70,F0,04,C9,10,D0,EB
60,48,8A,48,98,48,20,23,4A,68,A8,68,AA,68,4C,D8
FF,48,20,23,4A,68,4C,D5,FF,4C,D5,FF,D5,FF,A8,68
AA,68,4C,D8,FF,48,20,23,4A,68,4C,D5,X
13550:REM **CHECKSUM    **BLOCK 16
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```
0E,56,56,66,37,20,66,02,30,AD,02,DD,09,03,8D,02
DD,AD,00,DD,29,FC,09,03,8D,00,DD,A9,04,8D,88,02
A9,20,85,FC,A2,40,A0,3F,A9,00,85,FB,20,00,90,20
55,90,20,A8,90,20,F4,91,A9,00,85,28,20,16,91,20
30,91,20,C6,91,20,D9,91,20,C4,92,A9,0F,8D,15,D0
8D,10,D0,A2,2A,A0,3C,8E,00,D0,8C,01,D0,A2,1E,A0
5B,8E,02,D0,8C,03,D0,A0,8F,8E,04,D0,8C,05,D0,A2
2A,A0,AE,8E,06,D0,8C,07,D0,A9,0A,8D,17,D0,A9,06
13687:REM **CHECKSUM    **BLOCK 1

8D,1D,D0,20,92,90,A9,00,20,90,FF,4C,A8,41,00,33
43,A8,41,A8,41,A8,41,59,44,48,44,50,43,6D,43,A8
41,A8,41,A8,41,A8,41,A8,41,A8,41,A8,41,A8,41,6B
44,A8,41,A8,41,F7,42,E1,41,08,42,11,42,1A,42,23
42,2C,42,35,42,59,42,5F,42,A8,41,C0,42,A8,41,DC
42,A8,41,A8,41,A8,41,7D,44,85,44,89,44,8D,44,91
44,95,44,99,44,9D,44,A1,44,A8,41,A8,41,A8,41,A8
41,A8,41,A8,41,A8,41,B5,48,87,47,D0,45,E8,44,B0
13514:REM **CHECKSUM    **BLOCK 2

44,A9,41,A9,41,A8,41,03,45,41,45,A8,41,0F,45,4A
46,A8,41,68,42,9A,49,A8,41,A5,44,21,45,72,45,A8
41,A8,41,A8,41,76,42,A8,41,A8,41,A8,41,A8,41,A8
41,A8,41,A8,41,A8,41,A8,41,A8,41,A8,41,A8,41,A8
40,A8,41,A8,41,A8,41,A8,41,A8,41,A8,41,A8,41,A8
41,A8,41,A8,41,A8,41,A8,41,A8,41,A8,41,A8,41,A8
41,A8,41,A8,41,A8,41,A8,41,A8,41,A8,41,A8,41,A8
41,A8,41,A8,41,A8,41,A8,41,A8,41,A8,41,A8,41,A8
14118:REM **CHECKSUM    **BLOCK 3

41,03,4A,A8,41,28,43,A8,41,A8,41,A8,41,A8,41,A8
41,A8,41,A8,41,A8,41,62,44,A8,41,5E,43,E0,43,A9
41,A8,41,A8,41,A8,41,A8,41,A8,41,A8,41,A8,41,74
44,20,3B,94,20,E4,FF,F0,F8,C9,0D,90,F4,C9,9E,B0
F0,38,E9,0D,AA,A0,02,A9,86,85,FB,A9,40,85,FC,18
8A,65,FB,85,FB,A5,FC,69,00,85,FC,88,D0,F1,C8,B1
FB,99,38,00,88,10,F8,6C,3B,00,AD,FE,3F,29,0F,8D
FE,3F,AD,F7,3F,A8,AD,F7,3F,18,69,01,29,0F,8D,F7
16312:REM **CHECKSUM    **BLOCK 4

3F,8D,21,D0,CD,FE,3F,F0,F0,AA,98,20,24,92,4C,A8
41,EE,20,D0,EE,F8,3F,4C,A8,41,EE,F9,3F,20,3B,91
4C,A8,41,EE,FB,3F,EE,25,D0,4C,A8,41,EE,FC,3F,EE
26,D0,4C,A8,41,EE,FA,3F,20,24,91,4C,A8,41,AD,F7
3F,29,0F,8D,F7,3F,AD,FE,3F,A8,AD,FE,3F,18,69,01
29,0F,8D,FE,3F,CD,F7,3F,F0,F3,AA,98,20,24,92,4C
A8,41,EE,FD,3F,4C,A8,41,EE,FF,3F,20,12,92,4C,A8
41,A9,0F,4D,1C,D0,8D,1C,D0,4C,A8,41,20,36,92,20
16482:REM **CHECKSUM    **BLOCK 5

8C,93,20,30,91,A9,03,A2,98,A0,07,20,47,91,A9,07
A2,A4,A0,07,20,47,91,20,1B,90,C9,03,D0,08,20,30
91,20,C6,91,30,D3,20,48,92,20,32,90,20,4C,90,20
9B,95,A9,00,8D,15,D0,85,FB,A9,04,85,FC,A2,E8,A0
07,A9,20,20,00,90,4C,31,A8,A9,01,20,B7,93,B0,CE
A9,00,20,41,96,20,F4,91,20,C4,92,20,92,90,A9,0F
8D,15,D0,D0,B9,A9,04,20,B7,93,B0,A8,A9,F7,85,FB
A9,3F,85,FC,A2,00,A0,40,A9,FB,20,31,96,4C,CF,42
14664:REM **CHECKSUM    **BLOCK 6

AE,F5,3F,AC,F6,3F,A9,00,20,11,93,20,14,94,A9,20
2C,F3,3F,08,10,03,20,04,94,50,03,20,F4,93,28,F0
03,20,E4,93,A9,10,2D,F3,3F,F0,03,20,D4,93,4C,A8
41,AE,F5,3F,AC,F6,3F,A9,01,4C,FF,42,20,14,94,AD
F4,3F,48,29,7F,8D,F5,3F,68,29,80,D0,06,20,04,94
4C,25,43,20,F4,93,4C,25,43,20,14,94,A9,00,8D,F5
3F,8D,F6,3F,4C,A8,41,A0,3F,A9,00,91,29,88,10,FB
20,C4,92,4C,50,43,20,14,94,CE,F5,3F,10,06,EE,F5
13692:REM **CHECKSUM    **BLOCK 7

3F,AD,F5,3F,85,FB,AD,F6,3F,85,FC,38,20,86,93,20
1F,94,AE,F5,3F,4C,CD,43,8A,29,07,A8,A9,00,38,6A
88,10,FC,85,FF,8A,4A,4A,4A,A8,B1,FB,25,FF,48,CA
8A,29,07,A8,A9,00,38,6A,88,10,FC,85,FF,8A,4A,4A
4A,A8,68,D0,0A,38,A9,FF,E5,FF,31,FB,4C,CA,43,A5
FF,11,FB,91,FB,E8,E8,E0,18,D0,BD,A0,02,B1,FB,29
FE,91,FB,20,C4,92,4C,A8,41,A9,80,8D,F2,3F,A9,02
85,26,20,1F,94,A2,16,4C,30,44,8A,29,07,A8,A9,00
16492:REM **CHECKSUM    **BLOCK 8

38,6A,88,10,FC,85,FF,8A,4A,4A,4A,A8,B1,FB,25,FF
48,E8,8A,29,07,A8,A9,00,38,6A,88,10,FC,85,FF,8A
4A,4A,4A,A8,68,D0,0A,38,A9,FF,E5,FF,31,FB,4C,2C
44,A5,FF,11,FB,91,FB,CA,CA,EC,F5,3F,30,02,B0,BA
AE,F5,3F,A9,00,48,C6,26,D0,C8,68,20,C4,92,4C,A8
41,A0,3F,A9,FF,F1,29,91,29,88,10,F7,20,C4,92,4C
A8,41,20,14,94,20,04,94,4C,A8,41,20,14,94,20,F4
93,4C,A8,41,20,14,94,20,E4,93,4C,A8,41,20,14,94
15821:REM **CHECKSUM    **BLOCK 9

20,D4,93,4C,A8,41,A9,50,8D,F3,3F,4C,A8,41,A9,40
D0,F6,A9,60,D0,F2,A9,10,D0,EE,A9,00,F0,EA,A9,20
D0,F6,A9,90,D0,E2,A9,80,D0,DE,A9,A0,D0,DA,A9,FF
4D,8A,02,8D,8A,02,4C,A8,41,20,30,91,20,14,94,A9
03,A2,98,A0,07,20,47,91,A9,08,A2,A4,A0,07,20,47
91,20,1B,90,C9,03,D0,03,4C,95,42,A9,40,85,FB,A9
08,85,FC,A2,00,A0,10,8A,20,00,90,20,C4,92,4C,CF
44,C6,28,A5,28,C8,FF,D0,04,A9,1E,85,28,20,D9,91
16066:REM **CHECKSUM    **BLOCK 10

20,16,91,20,C6,91,20,C4,92,4C,95,42,E6,28,A5,28
C9,1F,D0,E9,A9,00,F0,E3,A9,01,20,51,94,B0,08,A9
00,20,41,96,4C,CF,42,4C,95,42,20,A2,95,B0,F8,20
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16,A0,00,20,F0,FF,A9,00,4C,90,X
7034:REM **CHECKSUM    **BLOCK 21
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● Wanted! Has anybody out there got a copy of a game called *Micro Monopoly*, by a company who has since gone bust and who I can't remember the name of? I think it may have been called Little Genius, but I'm not sure. I am willing to pay for this game so if you have a copy, please contact Debbie Tredgett, 11 Higher Wear Road, Countess Wear, Exeter, Devon EX2 7EL. Tel. (0392) 873817. I need this game to complete my Monopoly collection so please if you can help!

CLUBS AND EVENTS

● "Orcsbane" A new magazine/club for adventure gamers. Only 50 pence to join. Any articles or help with artwork would be much appreciated and would result in free issue exchange. Contact Nick Walkland, 84, Kendal Road, Sheffield S6 4QH.

● Can anyone tell me if there is a CBM 64 users club in the Luton area please? David Brown, 24 Chandos Road, Luton, Bedfordshire LU4 8EX.

● Calling all Finsbury Parkers! The official Finsbury Park Computer Club has now been formed. If you are interested in meeting at The Brownswood Tavern on Tuesday nights between 7pm and 10pm then contact Peter Shaw or Tony Samuels at 19C Brownswood Road, Finsbury Park, London N4. Tel. 01-802 3439 after 6 pm for further information.

MESSAGES

● Are you a plane spotter? Own a 64 and disk drive? British Registration Program! sae to author for details — Adam Harrison, 15 Warren Drive, Ifield, Crawley, Sussex RH11 0DS.

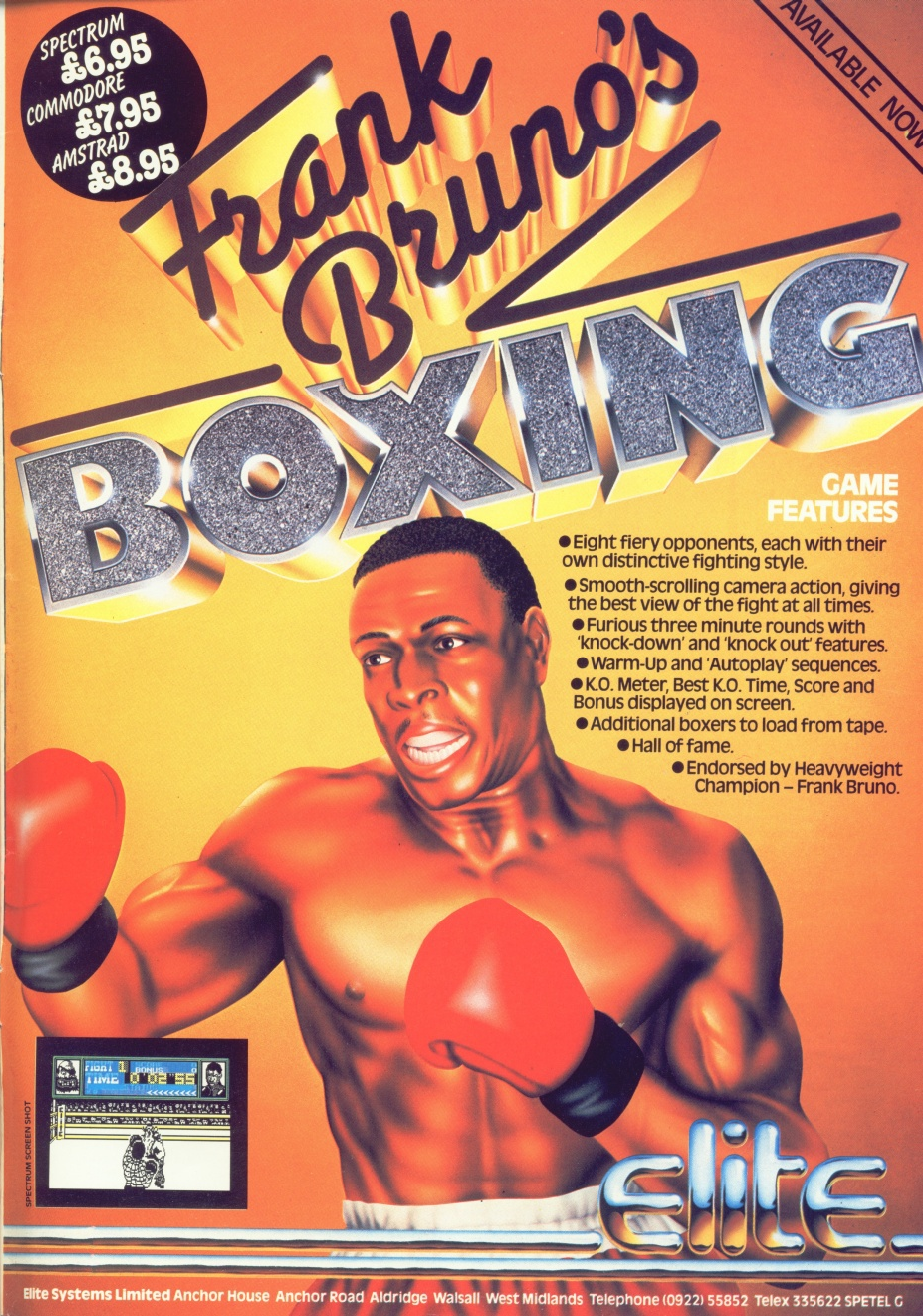
● I am a CBM 64 user. Can anyone help me on a game called *Merry Christmas* from Melbourne House? If so send tips to John Yates, Roebuck Inn, 1 Whitfield Cross, Glossop, Derbyshire SY13 8NW.

● Hints and Pokes latest issue available now! Approximately 100 games covered per issue. Prizes for your most original tips. Send £1 (£1.25 — Europe) to CB Dinneen (Y64) 15 Gordon Street, Gorton, Manchester M18 8SL.

● Let's help each other! Send sae for details of free user group. No adverts/pirates wanted! Hints and tips, utilities exchanges etc. PO Box 4, Camborne, Cornwall.

64

Editor Alison Hjul; **Art Editor** Hazel Bennington; **Production Editor** Teresa Maughan; **Editorial Assistant** Martin McGuinness; **Deadline Dodgers** Robin Andrews, Dougie Bern, Steve Colwill, Steve Cook, David Janda, Nik Lumsden, Chris Palmer, Max Phillips, Phil South, Surya; **Art Assistant** Mike Clewes; **Advertisement Manager** Neil Dyson; **Advertisement Executive** Penny Rouch; **Production Manager** Sonia Hunt; **Art Director** Jimmy Egerton; **Publisher** Stephen England; **Published by** Sportscene Specialist Press Ltd, 14 Rathbone Place, London W1P 1DE. **Telephone** (all departments) (01) 631 1433; **Telex** 8954139 BunchG. Company registered in England; **Typesetting** Carlinpoint, London; **Reproduction** Latent Image Ltd, London; **Printed by** Chase Web Offset, St Austell, Cornwall; **Distribution** Seymour Press, 334 Brixton Road, London SW9. Telephone (01) 733 4444. **Your 64** is a monthly publication.



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